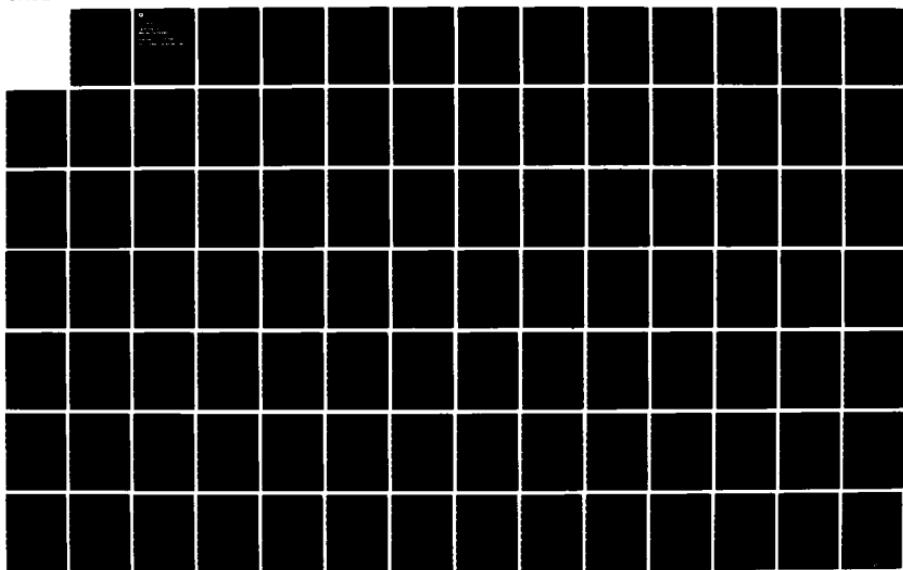
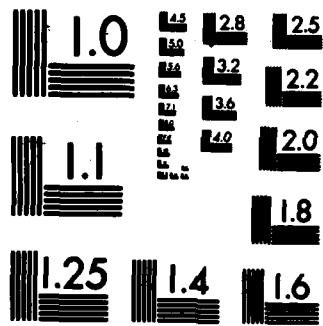


AD-A146 451 PERFORMANCE MONITORING SYSTEM: SUMMARY OF LOCK
STATISTICS FOR OCTOBER-DECEMBER 1983(U) ARMY ENGINEER
INST FOR WATER RESOURCES FORT BELVOIR VA
UNCLASSIFIED M V FLEMING ET AL. AUG 84 IWR-84-SR-5 F/G 13/10 NL

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US Army Corps
of Engineers
Engineer Institute for
Research and Development

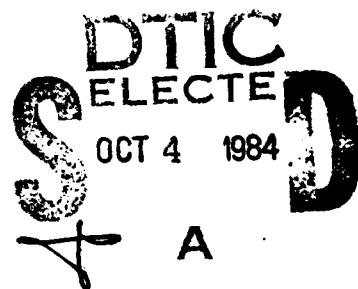
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AD-AT46 451

Performance Monitoring System:

Summary of Lock Statistics for October - December 1983

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August 1984

Summary Report 84-SR-5

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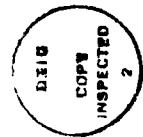
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REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER 84-SR-5	2. DRAFT ACCESSION NO. <i>A146 931</i>	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) Performance Monitoring System Summary of Lock Statistics October - December 1983	5. TYPE OF REPORT & PERIOD COVERED Quarterly Summary Report October - December 1983	6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) Marilyn V. Fleming & Kevin A. Alexander U.S. Army Corps of Engineers Water Resources Support Center Institute for Water Resources	8. CONTRACT OR GRANT NUMBER(S)	
9. PERFORMING ORGANIZATION NAME AND ADDRESS U.S. Army Corps of Engineers Water Resources Support Center, IWR Casey Building, Ft. Belvoir, VA 22060-5586	10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS	
11. CONTROLLING OFFICE NAME AND ADDRESS Office, Chief of Engineers, U.S. Army Corps of Engineers, Pulaski Building, 20 Massachusetts Avenue, N.W., Washington, D. C. 20314	12. REPORT DATE August 1984	13. NUMBER OF PAGES 100
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)	15. SECURITY CLASS. (of this report) Unclassified	15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report) Approved for Public Release; distribution unlimited.		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES Although the data are edited, the United States Government does not warrant its suitability for all purposes and does not assume responsibility for results of computations performed with these data.		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) lock Performance Monitoring System PMS Statistics		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Lock Performance Monitoring data are collected at Corps locks by lock operators from observation and information provided by waterway operators. This quarterly summary is an overview of the collected statistics.		

**PERFORMANCE MONITORING SYSTEM
SUMMARY OF LOCK STATISTICS
OCTOBER 1983 - DECEMBER 1983**

**Navigation Data Management
and Applications Branch
Navigation Division**

U.S. Army Corps of Engineers
Water Resources Support Center
Institute for Water Resources
Ft. Belvoir, Virginia 22060



August 1984

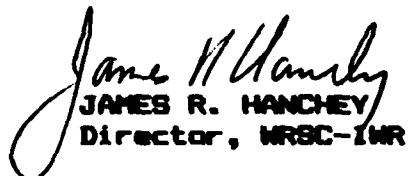
Summary Report 84-SR-5

PREFACE

This report is a product of the Navigation Data Management and Applications Branch of the U. S. Army Engineer Institute for Water Resources (WRSC-IWR). The information is compiled from statistics collected at the Corps locks in support of the lock Performance Monitoring System (PMS).

The study is managed by Mrs. Marilyn V. Fleming under the supervision of Mr. Francis M. Sharp, Chief of the WRSC-IWR Navigation Data Management and Applications Branch, and Dr. Lloyd S. Antle, Chief of the WRSC-IWR Navigation Division. The Office of the Chief of Engineers (OCE) sponsors are Mr. Henry W. Campbell Jr., DAEN-CWD-M, and Mr. Robert E. Daniel, DAEN-CWP-B.

Requests to update or change the distribution, comments and questions can be directed to Frank Sharp (202-355-2240 or FTS 385-2240) or Marilyn Fleming at the same telephone number. The information is produced and distributed quarterly.



JAMES R. HANCHAY
Director, WRSC-IWR

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Introduction

The lock Performance Monitoring System (PMS) is a part of the Inland Navigation Systems Analysis (INSA) program and encompasses the collection, editing, maintenance and analysis of data collected at all Corps-owned and operated locks. The data have been collected since March of 1975 and consist of information describing the traffic through the locks as well as the physical aspects of lockages. The quarterly summary of selected statistics presented in the appendix provides an overview of the traffic and operation at each lock. The quarterly report is presented as a set of three tables for each Corps District. Information reported for each lock and chamber includes:

TABLE 1. A listing providing the name of the lock, the river on which the lock is and its dimensions. In those cases where there is no quarterly information, this table will be the only display for the district.

TABLE 2. A table providing, by direction and total, the number of tows, commercial vessels other than tows, recreational vessels, barges (empty and loaded), commercial lockages, recreational lockages and tonnage.

TABLE 3. A summary of approach, entry, chambering and exit times (maximum, minimum and average) and the number of delays, total delay time, maximum delay time and average delay time.

Although the summary information will be computed and displayed for chambers at which there is data for only one or two months of the quarter, the fact is noted on the report.

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC B2	DISTRICT NAME NEW ORLEANS	DIVISION NAME LOWER MISS VALLEY	MONTHS REPORTED 10/83	MONTHS REPORTED 11/83	MONTHS REPORTED 12/83
RIVER	LCODE-LOCK NAME		LEN/WD/DRAFT (FT/FT/FT)		
ATCHAFALAYA RIVER	11-BERKICK LOCK		0300/0045/11.0		
BAYOU TECHE	31-KEYSTONE LOCK		0160/0036/12.0		
FRESHWATER BAYOU	41-FRESHWATER BAYOU LOCK		0590/0084/15.0		
GULF INTRACOASTAL	01-PORT ALLEN LOCK		1202/0084/15.0		
	02-BAYOU SORREL LOCK		0800/0056/16.0		
	03-INNER HARB NAVIGATION CANL LK		0626/0074/40.0		
	04-ALGIERS LOCK		0760/0075/15.0		
	05-HARVEY LOCK		0424/0075/14.0		
	06-BAYOU BOEUF LOCK		1148/0075/15.0		
	07-VERMILLION LOCK		1195/0056/14.0		
	08-CALCASIEU LOCK		1194/0075/15.0		
	21-SCHOONER BAYOU CONTROL STRUCT		9999/0075/14.0		
	22-CATFISH POINT CONTROL STRUCT		9999/0056/16.0		
	23-CALCASIEU SALT WATER BARRIER		9999/0056/15.0		
OLD RIVER	51-OLD RIVER LOCK		1200/0075/15.0		
RED RIVER	01-RED RIVER LOCK & DAM #1		0685/0084/ 9.0		

NO DATA RECORDED ON SUMMARY FILE FOR THIS PERIOD

NO DATA RECORDED ON LCKAGE FILE FOR THIS PERIOD

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

ERDC 83	DISTRICT NAME ST. LOUIS	DIVISION NAME LOWER MISS VALLEY	MONTHS REPORTED
RIVER	LCODE-LOCK NAME	LEN/WID/DRAFT (FT/FT/FT)	
KASKASKIA RIVER	01-KASKASKIA RIVER NAVIGATION LK	0610/0084/12.0	
MISSISSIPPI RIVER	24-LOCK & DAM 24	0610/0110/12.0	
	25-LOCK & DAM 25	0610/0110/12.0	
	26-LOCK & DAM 26	0610/0110/12.0	
	26-LOCK & DAM 26 AUX 1	0380/0110/12.0	
	27-CHAIN OF ROCKS LOCK & DAM 27	1210/0110/12.0	
	27-CHAIN OF ROCKS LK & DM 27 AX1	0610/0110/12.0	

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC 83	DISTRICT NAME ST. LOUIS	DIVISION NAME LOWER MISS VALLEY						MONTHS REPORTED						
		10/83			11/83			12/83						
RIVER/LOCK NAME	TONS	VESSL RECRTN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS CARRIER	LCKGES RECRTN	LCKGES OTHER	LCKGES TOTAL	TONNAGE (KTONS)		
KASKASKIA RIVER														
KASKASKIA RIVER NAVIGATION LK	XXX													
UPBOUND STATISTICS	156	82	54	292	563	1	564	211	49	3	263	0		
DOWNBOUND STATISTICS	150	89	68	307	1	570	571	219	52	1	272	655		
TOTALS	306	171	122	599	564	571	1135	430	101	4	535	655		
MISSISSIPPI RIVER														
LOCK & DAM 24	XXX													
UPBOUND STATISTICS	438	24	116	578	3462	1661	5123	812	17	8	837	2484		
DOWNBOUND STATISTICS	556	50	45	651	290	6434	6714	998	50	10	1058	9035		
TOTALS	994	74	161	1229	3742	8095	11837	1810	67	18	1895	11519		
LOCK & DAM 25	XXX													
UPBOUND STATISTICS	431	33	143	607	3424	1642	5066	813	19	6	838	2460		
DOWNBOUND STATISTICS	571	64	59	694	261	6489	6750	1015	52	10	1077	9117		
TOTALS	1002	97	202	1301	3685	8131	11816	1828	71	16	1915	11578		
LOCK & DAM 26	XXX													
UPBOUND STATISTICS	570	0	47	617	5044	2825	7869	1139	0	1	1140	4219		
DOWNBOUND STATISTICS	677	3	24	704	686	8053	8739	1310	0	3	1313	11348		
TOTALS	1247	3	71	1321	5730	10878	16608	2449	0	4	2453	15567		
LOCK & DAM 26 AUX 1	XXX													
UPBOUND STATISTICS	456	18	120	594	1486	825	2311	992	13	21	1026	1493		
DOWNBOUND STATISTICS	482	116	57	655	490	2201	2691	1032	70	18	1120	3247		
TOTALS	938	134	177	1249	1976	3026	5002	2024	83	39	2146	4741		
CHAIN OF ROCKS LOCK & DAM 27	XXX													
UPBOUND STATISTICS	979	9	139	1127	6611	3602	10213	1017	2	9	1028	5664		
DOWNBOUND STATISTICS	1095	29	113	1237	1065	10312	11397	1118	9	6	1133	14675		
TOTALS	2074	38	252	2364	7896	13914	21610	2135	11	15	2161	20339		

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

ELOC 03	DISTRICT NAME ST. LOUIS	DIVISION NAME LOWER MISS VALLEY				MONTHS REPORTED						
		10/83		11/83		12/83						
RIVER/LOCK NAME		TONS RECRTN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS CONVER	LCKGES RECRTN	LCKGES OTHER	LCKGES TOTAL	TONNAGE (KTONS)

MISSISSIPPI RIVER

CHAIN OF ROCKS LK & DM 27 AX1	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR
UPBOUND STATISTICS	354	20	180	554	689	269	958	491	9	19	519	411
DOWNBOUND STATISTICS	346	137	134	617	241	860	1101	467	61	23	551	1242
TOTALS	700	157	314	1171	930	1129	2059	958	70	42	1070	1653

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC 83	DISTRICT NAME ST. LOUIS	DIVISION NAME LOWER MISS VALLEY	MONTHS REPORTED														
			10/83			11/83			12/83								
ALL TIMES EXPRESSED IN MINUTES																	
APPROACH			LOCK PROCESSING TIME														
	ENTRY		CHAMBER			EXIT											
	MIN	Avg	MAX	MIN	Avg	MAX	MIN	Avg	MAX	MIN	Avg	MAX	MIN	Avg	MAX		
KASKASKIA RIVER																	
KASKASKIA RIVER NAVIGATION L																	
	1	6	55	1	4	23	5	9	30	1	4	21	:	25	536	21.4	60
MISSISSIPPI RIVER																	
LOCK & DAM 24	1	7	390	1	9	194	4	11	105	1	17	125	:	933	534818	573.2	2662
LOCK & DAM 25	1	5	263	1	9	165	4	12	100	1	15	230	:	1000	734894	734.9	10260
LOCK & DAM 26	1	3	805	1	10	150	3	13	119	1	11	454	:	1246	2169053	1740.8	6230
LOCK & DAM 26 AUX 1	1	5	612	1	7	127	2	13	98	1	11	119	:	937	690530	737.0	3664
CHAIN OF ROCKS LOCK & DAM 27	1	9	67	1	8	40	3	11	38	1	8	29	:	1684	140016	83.1	666
CHAIN OF ROCKS LK & DM 27 AX	1	7	51	1	4	40	5	10	33	1	3	35	:	325	11339	34.9	732

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 10/83 THROUGH 12/83
INSTITUTE FOR WATER RESOURCES

EROC 84	DISTRICT NAME VICKSBURG	DIVISION NAME LOWER MISS VALLEY	MONTHS REPORTED
			10/83 11/83 12/83
RIVER	LCODE-LOCK NAME		LEN/WID/DRAFT (FT/FT/FT)
OUCHITA/BLACK RIV	01-JONESVILLE LOCK & DAM		0655/0084/23.4
	02-COLUMBIA LOCK & DAM		0655/0084/27.4
	06-LOCK & DAM 6		0300/0055/17.4
	08-LOCK & DAM 8		0300/0055/19.0

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC B4	DISTRICT NAME VICKSBURG	DIVISION NAME LOWER MISS VALLEY						MONTHS REPORTED					
					10/83			11/83			12/83		
RIVER/LOCK NAME	TONS	VESSEL RECRTH	VESSEL OTHER	VESSEL TOTAL	BARGES EMPTY	BARGES FULL	BARGES TOTAL	LOCKGS CARRIER	LCKGES RECRTH	LCKGES OTHER	LCKGES TOTAL	TONNAGE (KTONS)	
OKLAHOMA CITY/BLACK RIV													
JONESVILLE LOCK & DAM													
UPBOUND STATISTICS													
21	3	0	24	32	24	56	26	2	1	29	42		
DOWNBOUND STATISTICS													
16	1	2	19	24	16	40	23	0	2	25	20		
TOTALS	37	4	2	43	56	40	96	49	2	3	54	63	
COLUMBIA LOCK & DAM													
UPBOUND STATISTICS													
5	2	0	7	9	3	12	7	1	1	9	3		
DOWNBOUND STATISTICS													
5	0	0	5	3	9	12	6	0	0	6	9		
TOTALS	10	2	0	12	12	12	24	13	1	1	15	13	
LOCK & DAM 6													
UPBOUND STATISTICS													
5	3	4	12	0	10	10	6	2	0	8	4		
DOWNBOUND STATISTICS													
6	4	1	11	12	0	12	7	2	0	9	0		
TOTALS	11	7	5	23	12	10	22	13	4	0	17	4	
LOCK & DAM 8													
UPBOUND STATISTICS													
4	6	1	11	0	8	8	6	3	0	9	4		
DOWNBOUND STATISTICS													
6	4	0	10	12	0	12	7	2	0	9	0		
TOTALS	10	10	1	21	12	8	20	13	5	0	18	4	

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 10/83 THROUGH 12/83
INSTITUTE FOR WATER RESOURCES

EROC B4	DISTRICT NAME VICKSBURG	DIVISION NAME LOWER MISS VALLEY	10/83	11/83	12/83	MONTHS REPORTED										
												ALL TIMES EXPRESSED IN MINUTES				
APPROACH	LOCK PROCESSING TIME			: DELAYED			DELAY			DELAY						
	ENTRY	CHAMBER	EXIT	TONS	TIME	Avg	Max									
MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	(ALL VSSLs)				
UCHITA/BLACK RIV																
JONESVILLE LOCK & DAM	1	8	35	1	4	13	5	19	48	1	7	20	8	175	21.9	60
COLUMBIA LOCK & DAM	3	5	9	3	5	11	5	16	25	5	6	12	0	0	0.0	0
LOCK & DAM 6	2	5	15	1	5	15	5	15	35	1	6	18	11	37	3.4	8
LOCK & DAM 8	2	4	15	2	5	10	5	15	35	2	6	15	8	42	5.3	15

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 10/83 THROUGH 12/83
INSTITUTE FOR WATER RESOURCES

EROC	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED		
E3	NEW YORK	NORTH ATLANTIC	10/83	11/83	12/83
RIVER HUDSON RIVER	LCODE-LOCK NAME 01-TROY LOCK & DAM	LEN/WID/DRAFT (FT/FT/FT) 0493/0044/15.0			

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC E3	DISTRICT NAME NEW YORK	DIVISION NAME NORTH ATLANTIC				MONTHS REPORTED								
						10/83		11/83		12/83				
RIVER/LOCK NAME		TONS	VESSL RECRTH	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS CARRIER	LCKGES RECRTH	LCKGES OTHER	LCKGES TOTAL	TONNAGE (KTONS)	
HUDSON RIVER														
TROY LOCK & DAM		XXX												
UPBOUND STATISTICS	77	101	1	179	0	85	85	81	65	6	152	162		
DOWNBOUND STATISTICS	82	277	1	360	81	2	83	88	178	7	273	0		
TOTALS	159	378	2	539	81	87	168	169	243	13	425	162		

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC E3	DISTRICT NAME NEW YORK	DIVISION NAME NORTH ATLANTIC	MONTHS REPORTED		
			10/83	11/83	12/83
ALL TIMES EXPRESSED IN MINUTES					
APPROACH	LOCK PROCESSING TIME	ENTRY	CHAMBER	EXIT	DELAYED DELAY
MIN AVE MAX : (TONS) TIME AVG MAX					(TONS) (TONS) (ALL VSSLS)
HUDSON RIVER					
TROY LOCK & DAM	3 8 23	4 5 15	5 10 25	4 5 10	8 90 10.0 40

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 10/83 THROUGH 12/83
INSTITUTE FOR WATER RESOURCES

EROC E4	DISTRICT NAME NORFOLK	DIVISION NAME NORTH ATLANTIC	MONTHS REPORTED		
			10/83	11/83	12/83
RIVER	LCODE-LOCK NAME		LEN/HID/DRAFT (FT/FT/FT)		
ATLANT INTRCOASTAL	11-GREAT BRIDGE GUARD LOCK		0600/0072/16.0		
DISMAL SWAMP	01-DEEP CREEK LOCK		0300/0052/12.0		
	02-SOUTH MILLS LOCK		0300/0052/12.0		

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC E4	DISTRICT NAME NORFOLK	DIVISION NAME NORTH ATLANTIC						MONTHS REPORTED						
					10/83			11/83			12/83			
RIVER/LOCK NAME		TONS	VESSL RECRN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS CARRIER	LOCKGS RECRN	LOCKGS OTHER	LOCKGS TOTAL	TONNAGE (KTONS)	
ATLANT INTROASTAL														
GREAT BRIDGE GUARD LOCK														
UPBOUND STATISTICS		172	403	74	649	112	123	235	228	211	23	462	133	
DOWNBOUND STATISTICS		158	2358	61	2577	98	109	207	220	598	18	836	122	
TOTALS		330	2761	135	3226	210	232	442	448	809	41	1298	256	
DISMAL SWAMP														
DEEP CREEK LOCK														
UPBOUND STATISTICS		0	222	0	222	0	0	0	2	110	0	112	0	
DOWNBOUND STATISTICS		0	45	0	45	0	0	0	2	23	0	25	0	
TOTALS		0	267	0	267	0	0	0	4	133	0	137	0	
SOUTH MILLS LOCK														
UPBOUND STATISTICS		0	14	0	14	0	0	0	0	12	0	12	0	
DOWNBOUND STATISTICS		0	260	0	260	0	0	0	2	119	0	121	0	
TOTALS		0	274	0	274	0	0	0	2	131	0	133	0	

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 10/83 THROUGH 12/83
INSTITUTE FOR WATER RESOURCES

EROC E4	DISTRICT NAME NORFOLK	DIVISION NAME NORTH ATLANTIC	10/83	MONTHS REPORTED 11/83	12/83												
ALL TIMES EXPRESSED IN MINUTES																	
APPROACH	LOCK PROCESSING TIME			: DELAYED DELAY		DELAY	DELAY										
	ENTRY	CHAMBER	EXIT	: TONS	TIME	Avg	Max										
MIN AVG MAX : MIN AVG MAX : MIN AVG MAX : MIN AVG MAX :				(TONS)	(TONS)	(TONS)	(ALL VSSLs)										
ATLANT INTROASTAL																	
GREAT BRIDGE GUARD LOCK	1	3	20	1	4	17	1	8	55	1	4	15	:	330	1546	4.7	45
DISMAL SWAMP																	
DEEP CREEK LOCK	2	4	7	1	4	6	5	9	12	2	5	10	:	0	0	0.0	175
SOUTH MILLS LOCK	2	4	8	2	4	6	5	9	11	3	5	10	:	0	0	0.0	115

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 10/83 THROUGH 12/83
INSTITUTE FOR WATER RESOURCES

EROC	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED		
F1	BUFFALO	NORTH CENTRAL	10/83	11/83	12/83
RIVER BLK ROCK CR/TONAWANDA	LCODE-LOCK NAME 01-BLACK ROCK LOCK		LEN/MID/DRAFT (FT/FT/FT) 0650/0070/21.7		

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC F1	DISTRICT NAME BUFFALO	DIVISION NAME NORTH CENTRAL	MONTHS REPORTED													
			10/83				11/83				12/83					
RIVER/LOCK NAME			TONS	VESSL RECRTH	VESSL OTHER	VESSL TOTAL	BARCS EMPTY	BARCS FULL	BARCES	LOCKGS CONVER	LOCKGS RECRTH	LOCKGS OTHER	LOCKGS TOTAL	TONNAGE (KTONS)		
(NAV, OPN, ETC)																

BLK ROCK CH/TONAWANDA

BLACK ROCK LOCK	XXX													
UPBOUND STATISTICS	0	291	18	309	0	0	0	20	113	11	144	0		
DOWNBOUND STATISTICS	17	393	5	415	0	17	17	22	188	9	219	154		
TOTALS	17	684	23	724	0	17	17	42	301	20	343	154		

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 10/83 THROUGH 12/83
INSTITUTE FOR WATER RESOURCES

EROC F1	DISTRICT NAME BUFFALO	DIVISION NAME NORTH CENTRAL	MONTHS REPORTED 10/83	11/83	12/83			
ALL TIMES EXPRESSED IN MINUTES								
APPROACH	LOCK PROCESSING TIME			DELAYED	DELAY	DELAY		
	ENTRY	CHAMBER	EXIT	: TONS	TIME	Avg	Max	
MIN	Avg	MAX	: MIN	Avg	MAX	: (TONS)	(TONS)	(ALL VSSLs)

BLK ROCK CH/TONAWANDA

BLACK ROCK LOCK	1	1	9	1	1	12	1	12	20	1	1	11	1	3	25	8.3	45
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TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC F3	DISTRICT NAME DETROIT	DIVISION NAME NORTH CENTRAL	MONTHS REPORTED		
			10/83	11/83	12/83
FOX RIVER		LCODE-LOCK NAME	LEN/WID/DRAFT (FT/FT/FT)		
		11-DE PERE LOCK & DAM	0146/0036/ 6.0		
		12-LITTLE KAUKAUNA LOCK & DAM	0146/0036/ 6.0		
		13-RAPIDE CROCHE LOCK & DAM	0146/0036/ 6.0		
		21-KAUKAUNA LOCK 1	0144/0035/ 6.0		
		22-KAUKAUNA LOCK 2	0144/0035/ 6.0		
		23-KAUKAUNA LOCK 3	0144/0037/ 6.0		
		24-KAUKAUNA LOCK 4	0144/0037/ 6.0		
		25-KAUKAUNA LOCK 5	0144/0036/ 6.0		
		32-LITTLE CHUTE LOCK 2	0142/0035/ 6.0		
		33-LITTLE CHUTE COMB LOCKS UPPER	0144/0037/ 6.0		
		34-LITTLE CHUTE COMB LOCKS LOWER	0146/0036/ 6.0		
		35-CEDARS LOCK & DAM	0144/0035/ 6.0		
		41-APPLETON LOCK 1	0145/0035/ 6.0		
		42-APPLETON LOCK 2	0145/0035/ 6.0		
		43-APPLETON LOCK 3	0144/0035/ 6.0		
		44-APPLETON LOCK 4	0144/0035/ 6.0		
THE INLAND ROUTE		51-MENASHA LOCK & DAM	0144/0035/ 6.0		
ST MARYS RIVER		11-ALANSON LOCK	0066/0018/ 7.0		
		01-MACARTHUR LOCK	0800/0080/31.0		
		02-NEW POE LOCK	1200/0110/32.0		
		03-DAVIS LOCK00	1350/0080/31.0		
		04-SABIN LOCK00	1350/0080/31.0		

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC F3	DISTRICT NAME DETROIT	DIVISION NAME NORTH CENTRAL	MONTHS REPORTED											
			10/83			11/83			12/83					
RIVER/LOCK NAME	TONS	VESSL RECRTN	VESSL OTHER	VESSL TOTAL	BARCS EMPTY	BARCS FULL	BARCES TOTAL	LOCKGS TOTAL	LOCKGS COMMER	LOCKGS RECRTN	LOCKGS OTHER	TONNAGE (NAV, OPN, ETC)		
FOX RIVER														
DE PERE LOCK & DAM		NO DATA RECORDED FOR THIS LOCK												
LITTLE KAUKAUNA LOCK & DAM	XXX	ONLY FIRST MONTH REPORTED												
UPBOUND STATISTICS	0	22	0	22	0	0	0	2	33	0	35	0		
DOWNBOUND STATISTICS	0	34	0	34	0	0	0	2	33	0	35	0		
TOTALS	0	56	0	56	0	0	0	4	66	0	70	0		
RAPIDE CROCHE LOCK & DAM	XXX	ONLY FIRST MONTH REPORTED												
UPBOUND STATISTICS	0	7	0	7	0	0	0	0	18	1	19	0		
DOWNBOUND STATISTICS	0	16	0	16	0	0	0	2	23	0	25	0		
TOTALS	0	23	0	23	0	0	0	2	41	1	44	0		
KAUKAUNA LOCK 1	XXX	ONLY FIRST MONTH REPORTED												
UPBOUND STATISTICS	0	9	0	9	0	0	0	2	9	2	13	0		
DOWNBOUND STATISTICS	1	19	1	21	1	0	1	2	13	3	18	0		
TOTALS	1	28	1	30	1	0	1	4	22	5	31	0		
KAUKAUNA LOCK 2	XXX	ONLY FIRST MONTH REPORTED												
UPBOUND STATISTICS	0	5	0	5	0	0	0	0	9	3	12	0		
DOWNBOUND STATISTICS	0	18	3	21	0	0	0	2	12	3	17	0		
TOTALS	0	23	3	26	0	0	0	2	21	6	29	0		
KAUKAUNA LOCK 3	XXX	ONLY FIRST MONTH REPORTED												
UPBOUND STATISTICS	0	8	0	8	0	0	0	2	10	0	12	0		
DOWNBOUND STATISTICS	0	18	0	18	0	0	0	2	13	0	15	0		
TOTALS	0	26	0	26	0	0	0	4	23	0	27	0		
KAUKAUNA LOCK 4	XXX	ONLY FIRST MONTH REPORTED												
UPBOUND STATISTICS	0	7	0	7	0	0	0	2	10	0	12	0		
DOWNBOUND STATISTICS	0	14	0	14	0	0	0	2	12	0	14	0		
TOTALS	0	21	0	21	0	0	0	4	22	0	26	0		

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC F3	DISTRICT NAME DETROIT	DIVISION NAME NORTH CENTRAL	MONTHS REPORTED									
			10/83			11/83			12/83			
RIVER/LOCK NAME	TONS	VESSL RECRTN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS CONNER	LCKGES RECRTN	LCKGES OTHER	LCKGES TOTAL	TONNAGE (KTOMS)
FOX RIVER												
KAUKAUNA LOCK 5		XXX ONLY FIRST MONTH REPORTED										
UPBOUND STATISTICS	0	8	0	8	0	0	0	2	10	0	12	0
DOWNBOUND STATISTICS	0	19	0	19	0	0	0	2	13	0	15	0
TOTALS	0	27	0	27	0	0	0	4	23	0	27	0
LITTLE CHUTE LOCK 2		XXX ONLY FIRST MONTH REPORTED										
UPBOUND STATISTICS	0	7	0	7	0	0	0	0	12	4	16	0
DOWNBOUND STATISTICS	0	14	5	19	0	0	0	1	16	6	23	0
TOTALS	0	21	5	26	0	0	0	1	28	10	39	0
LITTLE CHUTE COMB LOCKS UPPER		XXX ONLY FIRST MONTH REPORTED										
UPBOUND STATISTICS	0	5	0	5	0	0	0	2	11	2	15	0
DOWNBOUND STATISTICS	0	16	4	20	0	0	0	0	15	5	20	0
TOTALS	0	21	4	25	0	0	0	2	26	7	35	0
LITTLE CHUTE COMB LOCKS LOWER		XXX ONLY FIRST MONTH REPORTED										
UPBOUND STATISTICS	0	5	1	6	0	0	0	0	12	4	16	0
DOWNBOUND STATISTICS	0	16	3	19	0	0	0	1	14	4	19	0
TOTALS	0	21	4	25	0	0	0	1	26	8	35	0
CEDARS LOCK & DAM		XXX ONLY FIRST MONTH REPORTED										
UPBOUND STATISTICS	0	8	0	8	0	0	0	2	11	0	13	0
DOWNBOUND STATISTICS	0	16	1	17	0	0	0	2	15	1	18	0
TOTALS	0	24	1	25	0	0	0	4	26	1	31	0
APPLETON LOCK 1		XXX ONLY FIRST MONTH REPORTED										
UPBOUND STATISTICS	0	11	0	11	0	0	0	2	10	0	12	0
DOWNBOUND STATISTICS	0	12	1	13	0	0	0	1	18	1	20	0
TOTALS	0	23	1	24	0	0	0	3	28	1	32	0
APPLETON LOCK 2		XXX ONLY FIRST MONTH REPORTED										
UPBOUND STATISTICS	0	12	0	12	0	0	0	2	10	0	12	0
DOWNBOUND STATISTICS	0	11	1	12	0	0	0	2	18	1	21	0
TOTALS	0	23	1	24	0	0	0	4	28	1	33	0

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 10/83 THROUGH 12/83
INSTITUTE FOR WATER RESOURCES

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

ERIC F3	DISTRICT NAME DETROIT	DIVISION NAME NORTH CENTRAL	MONTHS REPORTED														
			10/83			11/83			12/83								
ALL TIMES EXPRESSED IN MINUTES																	
			LOCK	PROCESSING	TIME	ENTRY	CHAMBER	EXIT	: TONS	DELAYED	DELAY	DELAY	TIME	Avg	Max		
			APPROACH	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	(TONS)	(TONS)	(ALL VSSLS)		
FOX RIVER																	
DE PERE LOCK & DAM																	
NO DATA RECORDED FOR THIS LOCK																	
LITTLE KAUKAUNA LOCK & DAM	1	1	2	1	1	5	1	4	10	1	1	3	:	0	0	0.0	7
RAPIDE CROCHE LOCK & DAM	1	1	1	1	1	2	3	5	10	1	1	2	:	0	0	0.0	9
KAUKAUNA LOCK 1	1	1	1	1	1	2	3	6	7	1	1	2	:	0	0	0.0	10
KAUKAUNA LOCK 2	1	1	2	1	1	2	2	6	8	1	1	2	:	0	0	0.0	5
KAUKAUNA LOCK 3	1	1	1	1	1	5	3	5	10	1	1	3	:	0	0	0.0	3
KAUKAUNA LOCK 4	1	1	1	1	1	1	2	5	8	1	1	1	:	0	0	0.0	5
KAUKAUNA LOCK 5	1	1	1	1	1	5	1	5	9	1	1	1	:	0	0	0.0	5
LITTLE CHUTE LOCK 2	1	1	1	1	1	2	2	6	10	1	1	2	:	0	0	0.0	5
LITTLE CHUTE COMB LOCKS UPPE	1	1	2	1	1	2	2	5	10	1	1	2	:	0	0	0.0	5
LITTLE CHUTE COMB LOCKS LOWE	1	1	1	1	1	5	1	5	10	1	1	2	:	0	0	0.0	5
CEDARS LOCK & DAM	1	1	1	1	1	1	1	4	10	1	1	1	:	0	0	0.0	10
APPLETON LOCK 1	1	1	1	1	1	5	1	5	7	1	1	1	:	0	0	0.0	2
APPLETON LOCK 2	1	1	1	1	1	2	4	5	7	1	1	1	:	0	0	0.0	2
APPLETON LOCK 3	1	1	1	1	1	1	4	5	7	1	1	1	:	0	0	0.0	5

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 10/83 THROUGH 12/83
INSTITUTE FOR WATER RESOURCES

EROC F3	DISTRICT NAME DETROIT	DIVISION NAME NORTH CENTRAL	MONTHS REPORTED 10/83	MONTHS REPORTED 11/83	MONTHS REPORTED 12/83							
ALL TIMES EXPRESSED IN MINUTES												
APPROACH	LOCK PROCESSING TIME			: DELAYED DELAY		DELAY	DELAY					
	ENTRY	CHAMBER	EXIT	: TONS	TIME	Avg	Max					
MIN	AVG	MAX	MIN	AVG	MAX	(TONS)	(TONS)					
							(ALL VSSLs)					
FOX RIVER												
APPLETON LOCK 4	1	1	1	1	5	1	0	0	0.0	5		
MENASHA LOCK & DAM	1	1	2	1	1	5	1	2	1	2.0	11	
THE INLAND ROUTE												
ALANSON LOCK	1	1	3	1	1	5	2	6	10	0	0.0	20
ST MARYS RIVER												
MACARTHUR LOCK	NO DATA RECORDED FOR THIS LOCK											
NEW POE LOCK	NO DATA RECORDED FOR THIS LOCK											
DAVIS LOCK00	NO DATA RECORDED FOR THIS LOCK											
SABIN LOCK00	NO DATA RECORDED FOR THIS LOCK											

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC F4	DISTRICT NAME ROCK ISLAND	DIVISION NAME NORTH CENTRAL	MONTHS REPORTED 10/83	MONTHS REPORTED 11/83	MONTHS REPORTED 12/83
RIVER ILLINOIS	LCODE-LOCK NAME 01-THOMAS J O'BRIEN 02-LOCKPORT LOCK 03-BRANDON ROAD LOCK & DAM 04-DRESDEN ISLAND LOCK & DAM 05-MARSIELLES LOCK & DAM 06-STARVED ROCK LOCK & DAM 07-PEORIA LOCK & DAM 08-LAGRANGE LOCK & DAM		LEN/WID/DRAFT (FT/FT/FT) 1200/0110/12.0 1200/0110/12.0 1200/0110/12.0 1200/0110/12.0 1200/0110/12.0 1200/0110/12.0 1200/0110/12.0 1200/0110/12.0		
MISSISSIPPI RIVER	11-LOCK & DAM 11 12-LOCK & DAM 12 13-LOCK & DAM 13 14-LOCK & DAM 14 14-LOCK & DAM 14 AUXILIARY 1 15-LOCK & DAM 15 15-LOCK & DAM 15 AUXILIARY 1 16-LOCK & DAM 16 17-LOCK & DAM 17 18-LOCK & DAM 18 19-LOCK & DAM 19 19-LOCK & DAM 19 AUXILIARY 1 20-LOCK & DAM 20 21-LOCK & DAM 21 22-LOCK & DAM 22		1350/0110/10.0 1350/0110/10.0 1350/0110/10.0 1350/0110/10.0 1350/0110/10.0 1350/0110/10.0 1350/0110/10.0 1350/0110/10.0 1350/0110/10.0 1350/0110/10.0 1350/0110/10.0 1350/0110/10.0 1350/0110/10.0 1350/0110/10.0 1350/0110/10.0		

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC F4	DISTRICT NAME ROCK ISLAND	DIVISION NAME NORTH CENTRAL						MONTHS REPORTED				
					10/83		11/83		12/83			
RIVER/LOCK NAME	TONS	VESSL RECRW	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS COMMER	LCKGES RECRW	LCKGES OTHER	LCKGES TOTAL	TONNAGE (KTONS)
ILLINOIS												
THOMAS J O'BRIEN	XXX											
UPBOUND STATISTICS	326	340	45	711	297	679	976	367	148	5	520	998
DOWNBOUND STATISTICS	311	1052	60	1423	474	461	935	369	345	6	720	679
TOTALS	637	1392	105	2134	771	1140	1911	736	493	11	1240	1678
LOCKPORT LOCK	XXX											
UPBOUND STATISTICS	487	13	55	535	504	2009	2513	549	7	2	558	2998
DOWNBOUND STATISTICS	512	115	55	682	1511	1092	2603	585	53	0	638	1732
TOTALS	999	128	110	1237	2015	3101	5116	1134	60	2	1196	4730
BRANDON ROAD LOCK & DAM	XXX											
UPBOUND STATISTICS	480	13	58	531	532	2055	2587	569	9	3	581	3078
DOWNBOUND STATISTICS	479	115	53	647	1434	1123	2557	561	62	3	626	1756
TOTALS	959	128	111	1198	1966	3178	5144	1130	71	6	1207	4834
DRESDEN ISLAND LOCK & DAM	XXX											
UPBOUND STATISTICS	436	55	40	531	608	2151	2759	577	26	7	610	3269
DOWNBOUND STATISTICS	430	123	37	590	1395	1298	2693	554	66	7	627	2109
TOTALS	866	178	77	1121	2003	3449	5452	1131	92	14	1237	5378
MARSIELLES LOCK & DAM	XXX											
UPBOUND STATISTICS	454	74	27	535	843	2104	2947	616	53	11	680	3341
DOWNBOUND STATISTICS	432	122	39	593	1267	1491	2758	587	83	8	678	2388
TOTALS	886	196	66	1148	2110	3595	5705	1203	136	19	1358	5730
STARVED ROCK LOCK & DAM	XXX											
UPBOUND STATISTICS	477	98	29	604	1182	2133	3315	674	45	21	740	3410
DOWNBOUND STATISTICS	447	135	35	617	1252	1766	3018	624	85	17	726	2769
TOTALS	924	233	64	1221	2434	3899	6333	1298	130	38	1466	6179
PEDRIA LOCK & DAM	XXX											
UPBOUND STATISTICS	501	40	48	589	2126	2459	4585	419	26	318	763	3921
DOWNBOUND STATISTICS	487	105	63	655	1445	2721	4166	402	67	310	779	4011
TOTALS	988	145	111	1244	3571	5180	8751	821	93	628	1542	7932

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC F4	DISTRICT NAME ROCK ISLAND	DIVISION NAME NORTH CENTRAL		MONTHS REPORTED												
				10/83			11/83			12/83						
RIVER/LOCK NAME	TONS	VESSEL RECRTH	VESSEL OTHER	VESSEL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS CARRIER	LCKGES RECRTH	LCKGES OTHER	LCKGES TOTAL	TONNAGE (KTONS)				
ILLINOIS																
LAGRANCE LOCK & DAM																
UPBOUND STATISTICS	492	11	14	517	2603	2091	4694	437	5	261	703	3440				
DOWNBOUND STATISTICS	492	93	14	599	1015	3246	4261	422	54	268	744	4781				
TOTALS	984	104	28	1116	3618	5337	8955	859	59	529	1447	8222				
MISSISSIPPI RIVER																
LOCK & DAM 11																
UPBOUND STATISTICS	289	98	87	474	1859	1123	2982	517	86	8	611	1668				
DOWNBOUND STATISTICS	359	138	40	537	248	3808	4054	608	109	9	726	5369				
TOTALS	648	236	127	1011	2107	4931	7038	1125	195	17	1337	7037				
LOCK & DAM 12																
UPBOUND STATISTICS	317	130	71	518	2062	1245	3307	540	100	7	647	1834				
DOWNBOUND STATISTICS	400	175	20	595	269	4275	4544	667	147	9	823	6017				
TOTALS	717	305	91	1113	2331	5520	7851	1207	247	16	1470	7852				
LOCK & DAM 13																
UPBOUND STATISTICS	315	143	77	535	2059	1242	3301	553	92	6	651	1860				
DOWNBOUND STATISTICS	407	200	25	632	315	4269	4584	680	141	14	835	6012				
TOTALS	722	343	102	1167	2374	5511	7885	1233	233	20	1486	7872				
LOCK & DAM 14																
UPBOUND STATISTICS	400	87	77	564	2729	1373	4102	682	58	13	753	2032				
DOWNBOUND STATISTICS	502	134	18	654	321	5210	5331	846	112	13	971	7121				
TOTALS	902	221	95	1218	3050	6583	9633	1528	170	26	1724	9154				
LOCK & DAM 14 AUXILIARY 1	NO DATA RECORDED FOR THIS LOCK															
LOCK & DAM 15																
UPBOUND STATISTICS	374	3	72	449	2545	1408	3953	671	3	8	682	2100				
DOWNBOUND STATISTICS	491	10	32	533	339	5065	5424	874	10	6	890	7120				
TOTALS	865	13	104	982	2884	6493	9377	1545	13	14	1572	9221				

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC F4	DISTRICT NAME ROCK ISLAND	DIVISION NAME NORTH CENTRAL						MONTHS REPORTED					
					10/83			11/83			12/83		
RIVER/LOCK NAME	TONS	VESSEL RECRTH	VESSEL OTHER	VESSEL TOTAL	BARGES EMPTY	BARGES FULL	BARGES TOTAL	LOCKGS CARRIER	LCKGES RECRTH	LCKGES OTHER	LCKGES TOTAL	TONNAGE (KTONS)	
MISSISSIPPI RIVER													
LOCK & DAM 15 AUXILIARY 1	XXX												
UPBOUND STATISTICS	78	115	61	254	86	41	127	133	62	2	197	61	
DOWNBOUND STATISTICS	71	150	38	259	60	40	100	110	88	1	199	55	
TOTALS	149	265	99	513	146	81	227	243	150	3	396	117	
LOCK & DAM 16	XXX												
UPBOUND STATISTICS	431	26	113	570	2835	1598	4433	760	26	14	800	2375	
DOWNBOUND STATISTICS	556	48	37	641	397	5622	6019	959	50	8	1017	7882	
TOTALS	987	74	150	1211	3232	7220	10452	1719	76	22	1817	10257	
LOCK & DAM 17	XXX												
UPBOUND STATISTICS	432	3	85	520	2905	1775	4680	780	4	14	798	2631	
DOWNBOUND STATISTICS	552	34	15	601	495	5872	6367	977	50	10	1037	8229	
TOTALS	984	37	100	1121	3400	7647	11047	1757	54	24	1835	10860	
LOCK & DAM 18	XXX												
UPBOUND STATISTICS	429	17	104	550	2986	1772	4758	779	21	12	812	2624	
DOWNBOUND STATISTICS	557	49	37	643	502	5998	6500	996	56	7	1059	8412	
TOTALS	986	66	141	1193	3488	7770	11258	1775	77	19	1871	11036	
LOCK & DAM 19	XXX												
UPBOUND STATISTICS	420	15	123	558	3264	1683	4947	475	6	8	489	2511	
DOWNBOUND STATISTICS	516	47	62	625	329	5993	6321	538	23	6	569	8423	
TOTALS	936	62	185	1183	3592	7676	11268	1013	31	14	1058	10934	
LOCK & DAM 19 AUXILIARY 1	NO DATA RECORDED FOR THIS LOCK												
LOCK & DAM 20	XXX												
UPBOUND STATISTICS	437	10	147	594	3346	1680	5026	815	11	23	849	2496	
DOWNBOUND STATISTICS	522	47	91	660	328	5978	6304	953	46	17	1018	8370	
TOTALS	959	57	238	1254	3674	7658	11332	1770	57	40	1867	10866	
LOCK & DAM 21	XXX												
UPBOUND STATISTICS	427	23	125	575	3378	1595	4973	805	22	22	849	2394	
DOWNBOUND STATISTICS	537	44	60	641	235	6177	6412	975	53	17	1045	8665	
TOTALS	964	67	185	1216	3613	7772	11385	1780	75	39	1894	11059	

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

ERDC F4	DISTRICT NAME ROCK ISLAND	DIVISION NAME NORTH CENTRAL				MONTHS REPORTED							
						10/83			11/83			12/83	
RIVER/LOCK NAME		TONS RECRTH	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS CARRIER	LOCKGS RECRTH	LOCKGS OTHER	LOCKGS TOTAL	TONNAGE (KTONS) (NAV, OPN, ETC)	
MISSISSIPPI RIVER													
LOCK & DAM 22													
UPBOUND STATISTICS		418	33	115	566	3369	1634	5003	789	21	19	829	2442
DOWNBOUND STATISTICS	10	532	88	51	671	238	6231	6469	965	70	20	1055	8769
TOTALS		950	121	166	1237	3607	7865	11472	1754	91	39	1884	11211

TABLE 3

 PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC F4	DISTRICT NAME ROCK ISLAND	DIVISION NAME NORTH CENTRAL	MONTHS REPORTED															
			10/83			11/83			12/83									
ALL TIMES EXPRESSED IN MINUTES																		
			APPROACH	ENTRY	LOCK PROCESSING TIME	CHAMBER	EXIT		DELAYED	DELAY	DELAY	DELAY						
			MIN	AVG	MAX	MIN	Avg	Max	MIN	Avg	Max	(TONS)	TIME	Avg	Max			
ILLINOIS																		
THOMAS J O'BRIEN			1	3	28	1	2	30	3	13	44	1	2	16	104	1464	14.1	131
LOCKPORT LOCK			1	9	117	1	10	76	1	27	96	1	11	100	824	89844	109.0	1503
BRANDON ROAD LOCK & DAM			1	12	431	1	10	43	4	19	97	1	12	400	783	60612	77.4	1445
DRESDEN ISLAND LOCK & DAM			1	10	421	1	10	58	1	17	437	1	13	113	582	64255	110.4	1155
MARSEILLES LOCK & DAM			1	11	167	1	9	81	1	19	435	1	16	127	649	140810	217.0	1440
STARVED ROCK LOCK & DAM			1	8	112	1	9	83	6	16	108	1	14	406	589	100385	170.4	1440
PEORIA LOCK & DAM			1	6	423	1	8	57	1	7	43	1	12	154	618	75064	121.5	875
LAGRANGE LOCK & DAM			1	7	90	1	8	45	1	6	421	1	14	136	646	88281	136.7	995
MISSISSIPPI RIVER																		
LOCK & DAM 11			1	8	139	1	8	85	4	10	68	1	15	398	439	84431	192.3	2118
LOCK & DAM 12			1	9	151	1	8	88	1	7	40	1	15	146	520	83334	160.3	2148
LOCK & DAM 13			1	6	149	1	8	407	1	10	105	1	17	134	533	118788	222.9	1565
LOCK & DAM 14			1	7	377	1	9	327	1	9	434	1	17	185	732	287226	392.4	2855
LOCK & DAM 14 AUXILIARY 1			NO DATA RECORDED FOR THIS LOCK															
LOCK & DAM 15			1	10	105	1	9	97	1	11	302	1	19	183	688	181612	264.0	1682
LOCK & DAM 15 AUXILIARY 1			1	3	23	1	2	19	1	10	32	1	3	41	14	479	34.2	193

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

F4	DISTRICT NAME ROCK ISLAND	DIVISION NAME NORTH CENTRAL	MONTHS REPORTED											
			10/83			11/83			12/83					
ALL TIMES EXPRESSED IN MINUTES														
			APPROACH	LOCK PROCESSING TIME	ENTRY	CHAMBER	EXIT	:	DELAYED	DELAY	DELAY	DELAY		
			MIN AVG MAX	MIN AVG MAX	MIN AVG MAX	MIN AVG MAX	MIN AVG MAX	:	TONS	TIME	Avg	Max		(ALL VSSLS)
									(TONS)	(TONS)	(TONS)			
MISSISSIPPI RIVER														
LOCK & DAM 16			1 8 309	1 9 50	3 9 79	1 18 111	:	890	582235	654.2	6323			
LOCK & DAM 17			1 11 440	1 9 75	2 9 69	1 16 87	:	899	407013	452.7	1785			
LOCK & DAM 18			1 8 110	1 10 172	3 8 100	1 18 405	:	892	404788	453.8	5235			
LOCK & DAM 19			1 24 794	1 10 392	1 23 639	1 12 439	:	750	274401	365.9	7450			
LOCK & DAM 19 AUXILIARY 1			NO DATA RECORDED FOR THIS LOCK											
LOCK & DAM 20			1 7 306	1 9 270	2 7 76	1 17 394	:	768	204136	265.8	9534			
LOCK & DAM 21			1 9 108	1 9 158	1 6 50	1 18 751	:	818	176401	215.6	11653			
LOCK & DAM 22			1 9 432	1 10 70	1 6 60	1 20 434	:	893	409685	458.8	2220			

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

ERIC F5	DISTRICT NAME ST. PAUL	DIVISION NAME NORTH CENTRAL	MONTHS REPORTED		
			10/83	11/83	12/83
RIVER	LCODE-LOCK NAME		LEN/MID/DRAFT (FT/FT/FT)		
MISSISSIPPI RIVER	01-LOCK & DAM 1 MAIN CHBR 1		0400/0056/11.0		
	01-LOCK & DAM 1 MAIN CHBR 2		0400/0056/11.0		
	02-LOCK & DAM 2		0600/0110/11.0		
	02-LOCK & DAM 2 AUXILIARY 1		0500/0110/11.0		
	03-LOCK & DAM 3		0600/0110/11.0		
	04-LOCK & DAM 4		0600/0110/11.0		
	05-LOCK & DAM 5		0600/0110/11.0		
	06-LOCK & DAM 6		0600/0110/11.0		
	07-LOCK & DAM 7		0600/0110/11.0		
	08-LOCK & DAM 8		0600/0110/11.0		
	09-LOCK & DAM 9		0600/0110/11.0		
	10-LOCK & DAM 10		0600/0110/11.0		
	51-ST ANTHONY FALLS UPPER L & D		0400/0056/11.0		
	52-ST ANTHONY FALLS LOWER L & D		0400/0056/11.0		
	55-LOCK & DAM 5A		0600/0110/11.0		

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

ERIC FS	DISTRICT NAME ST. PAUL	DIVISION NAME NORTH CENTRAL	MONTHS REPORTED											
			10/83				11/83				12/83			
RIVER/LOCK NAME	TONS RECRTRN	VESSL RECRTRN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS CARRIER	LCKGES RECRTRN	LCKGES OTHER	LCKGES TOTAL	TONNAGE (KTONS) (NAV, DPN, ETC)		

MISSISSIPPI RIVER

LOCK & DAM 1 MAIN CHER 1	XXX	ONLY	FIRST AND SECOND	MONTHS REPORTED										
UPBOUND STATISTICS	202	197	29	428	138	233	371	230	114	3	347	302		
DOWNBOUND STATISTICS	213	239	13	465	189	208	397	229	119	4	352	302		
TOTALS	415	436	42	893	327	441	768	459	233	7	699	604		
LOCK & DAM 1 MAIN CHER 2	NO DATA RECORDED FOR THIS LOCK													
LOCK & DAM 2	XXX													
UPBOUND STATISTICS	267	255	31	553	1632	635	2267	383	136	8	527	943		
DOWNBOUND STATISTICS	298	199	7	504	79	2892	2971	466	112	7	585	4066		
TOTALS	565	454	38	1057	1711	3527	5238	849	248	15	1112	5010		
LOCK & DAM 2 AUXILIARY 1	NO DATA RECORDED FOR THIS LOCK													
LOCK & DAM 3	XXX													
UPBOUND STATISTICS	231	381	59	671	1370	638	2008	366	169	14	549	963		
DOWNBOUND STATISTICS	263	376	33	672	81	2677	2758	411	181	14	606	3771		
TOTALS	494	757	92	1343	1451	3315	4766	777	350	28	1155	4734		
LOCK & DAM 4	XXX													
UPBOUND STATISTICS	222	161	39	422	1429	652	2081	352	123	23	498	963		
DOWNBOUND STATISTICS	266	170	7	443	73	2826	2899	414	169	24	607	3983		
TOTALS	488	331	46	865	1502	3478	4980	766	292	47	1105	4947		
LOCK & DAM 5	XXX													
UPBOUND STATISTICS	219	108	31	358	1413	649	2062	350	83	21	454	966		
DOWNBOUND STATISTICS	262	108	2	372	78	2815	2893	422	116	23	561	3976		
TOTALS	481	216	33	730	1491	3464	4955	772	199	44	1015	4943		
LOCK & DAM 6	XXX													
UPBOUND STATISTICS	231	116	36	383	1693	703	2396	381	95	29	505	1043		
DOWNBOUND STATISTICS	279	123	3	405	73	3255	3328	461	138	25	624	4581		
TOTALS	510	239	39	788	1766	3958	5724	842	233	54	1129	5624		

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC FS	DISTRICT NAME ST. PAUL	DIVISION NAME NORTH CENTRAL	MONTHS REPORTED											
			10/83				11/83				12/83			
RIVER/LOCK NAME	TONS	VESSEL RECRTRN	VESSEL OTHER	VESSEL TOTAL	BARCS EMPTY	BARCS FULL	BARCES TOTAL	LOCKGS CONVER	LCKGS RECRTRN	LCKGS OTHER	LCKGS TOTAL	TONNAGE (KTONS)		
MISSISSIPPI RIVER														
LOCK & DAM 7	XXX													
UPBOUND STATISTICS	229	193	43	465	1684	696	2380	363	129	72	564	1017		
DOWNBOUND STATISTICS	280	210	18	508	73	3247	3320	441	155	84	680	4579		
TOTALS	509	403	61	973	1757	3943	5700	804	284	156	1244	5597		
LOCK & DAM 8	XXX													
UPBOUND STATISTICS	231	94	114	439	1695	797	2492	379	79	71	529	1203		
DOWNBOUND STATISTICS	282	100	8	390	87	3366	3453	468	109	74	651	4735		
TOTALS	513	194	122	829	1782	4163	5945	847	188	145	1180	5939		
LOCK & DAM 9	XXX													
UPBOUND STATISTICS	234	126	40	400	1533	1027	2560	394	107	20	521	1513		
DOWNBOUND STATISTICS	291	138	4	433	246	3321	3567	487	142	26	655	4674		
TOTALS	525	264	44	833	1779	4348	6127	881	249	46	1176	6188		
LOCK & DAM 10	XXX													
UPBOUND STATISTICS	295	148	65	508	1931	1044	2975	478	119	58	655	1530		
DOWNBOUND STATISTICS	364	185	21	570	236	3852	4088	581	161	61	803	5425		
TOTALS	659	333	86	1078	2167	4896	7043	1059	280	119	1458	6956		
ST ANTHONY FALLS UPPER L & D	XXX	ONLY FIRST AND SECOND MONTHS REPORTED												
UPBOUND STATISTICS	143	122	37	302	113	114	227	181	48	0	229	163		
DOWNBOUND STATISTICS	162	157	18	337	111	147	258	178	56	0	234	209		
TOTALS	305	279	55	639	224	261	485	359	104	0	463	372		
ST ANTHONY FALLS LOWER L & D	XXX	ONLY FIRST AND SECOND MONTHS REPORTED												
UPBOUND STATISTICS	198	136	27	361	146	208	354	224	55	1	280	253		
DOWNBOUND STATISTICS	211	160	16	387	178	210	388	223	57	0	280	290		
TOTALS	409	296	43	748	324	418	742	447	112	1	560	543		
LOCK & DAM 5A	XXX													
UPBOUND STATISTICS	220	142	40	402	1411	657	2048	335	115	85	535	972		
DOWNBOUND STATISTICS	262	140	10	412	75	2833	2908	397	138	89	624	3998		
TOTALS	482	282	50	814	1486	3490	4976	732	253	174	1159	4971		

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC FS	DISTRICT NAME ST. PAUL	DIVISION NAME NORTH CENTRAL	MONTHS REPORTED													
			10/83			11/83			12/83							
ALL TIMES EXPRESSED IN MINUTES																
APPROACH	LOCK	PROCESSING TIME	ENTRY	CHAMBER	EXIT	DELAY	DELAY	DELAY	DELAY							
MIN	AVG	MAX	MIN	AVG	MAX	TONS	TIME	TONS	TIME	(TONS)	(TONS)	(TONS)	(TONS)	(ALL VSSLS)		
MISSISSIPPI RIVER																
LOCK & DAM 1 MAIN CHBR 1	1	3	17	1	5	18	6	11	33	1	5	31	64	1457	22.8	58
LOCK & DAM 1 MAIN CHBR 2	NO DATA RECORDED FOR THIS LOCK															
LOCK & DAM 2	1	8	94	1	9	119	5	10	55	1	13	110	332	36433	109.7	595
LOCK & DAM 2 AUXILIARY 1	NO DATA RECORDED FOR THIS LOCK															
LOCK & DAM 3	1	8	119	1	7	73	4	6	40	1	13	70	264	23352	88.5	712
LOCK & DAM 4	1	8	305	1	8	64	4	6	55	1	14	91	236	18545	78.7	1048
LOCK & DAM 5	1	8	216	1	8	180	4	8	56	1	14	125	230	21325	92.7	986
LOCK & DAM 6	1	10	418	1	9	206	4	5	56	1	16	295	267	35132	122.4	1060
LOCK & DAM 7	1	9	315	1	8	125	4	6	40	1	14	172	293	26246	89.6	457
LOCK & DAM 8	1	8	93	1	8	104	4	7	57	1	16	374	302	41004	136.0	1055
LOCK & DAM 9	1	10	160	1	8	102	1	6	36	1	16	148	226	22303	98.7	427
LOCK & DAM 10	1	10	460	1	8	260	4	6	108	1	14	194	420	72482	172.6	1090
ST ANTHONY FALLS UPPER L & D 1	2	14	1	4	35	5	10	56	1	4	66	13	323	24.8	60	
ST ANTHONY FALLS LOWER L & D 1	3	55	1	4	31	5	12	43	1	4	58	61	1238	20.3	119	
LOCK & DAM 5A	1	7	97	1	7	88	4	6	22	1	12	78	254	20326	80.0	350

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 10/83 THROUGH 12/83
INSTITUTE FOR WATER RESOURCES

EROC C2	DISTRICT NAME PORTLAND	DIVISION NAME NORTH PACIFIC	MONTHS REPORTED
			10/83 11/83 12/83
RIVER	LOCK/LOCK NAME	LEN/WID/DRAFT (FT/FT/FT)	
COLUMBIA RIVER	01-BONNEVILLE LOCK & DAM	0500/0074/15.0	
	02-THE DALLES DAM	0650/0084/15.0	
	03-JOHN DAY LOCK & DAM	0650/0084/15.0	
WILLAMETTE RIVER	11-WILLAMETTE FALLS LOCKS 1 - 4	0200/0037/ 6.5	
	15-WILLAMETTE FALLS GUARD LOCK	0200/0037/ 6.5	

TABLE 2

 PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC G2	DISTRICT NAME PORTLAND	DIVISION NAME NORTH PACIFIC						MONTHS REPORTED						
		10/83			11/83			12/83						
RIVER/LOCK NAME	TONS	VESSL RECRTN	VESSL OTHER	VESSL TOTAL	BARCS EMPTY	BARCS FULL	BARGES TOTAL	LOCKGS CONNER	LOCKGS RECRTN	LOCKGS OTHER	LOCKGS TOTAL	TONNAGE (KTONS)	(NAV, DPN, ETC)	
COLUMBIA RIVER														
BONNEVILLE LOCK & DAM	XXX													
UPBOUND STATISTICS	256	18	24	298	616	285	901	564	8	14	586	464		
DOWNBOUND STATISTICS	271	13	20	304	64	877	941	615	15	10	640	1971		
TOTALS	527	31	44	602	680	1162	1842	1179	23	24	1226	2435		
THE DALLES DAM	XXX													
UPBOUND STATISTICS	216	4	10	230	495	278	773	226	3	3	232	459		
DOWNBOUND STATISTICS	218	5	2	225	61	722	783	223	4	5	232	1803		
TOTALS	434	9	12	455	556	1000	1556	449	7	8	464	2262		
JOHN DAY LOCK & DAM	XXX													
UPBOUND STATISTICS	217	6	7	230	494	275	769	222	3	5	230	454		
DOWNBOUND STATISTICS	216	6	8	230	58	717	775	222	3	5	230	1773		
TOTALS	433	12	15	460	552	992	1544	444	6	10	460	2228		
WILLAMETTE RIVER														
WILLAMETTE FALLS LOCKS 1 - 4	XXX													
UPBOUND STATISTICS	99	21	17	137	22	129	151	159	29	1	189	35		
DOWNBOUND STATISTICS	94	23	27	144	3	128	131	146	27	1	174	35		
TOTALS	193	44	44	281	25	257	282	305	56	2	363	71		
WILLAMETTE FALLS GUARD LOCK	XXX													
UPBOUND STATISTICS	108	7	126	241	25	96	121	149	7	97	253	22		
DOWNBOUND STATISTICS	103	10	146	259	10	93	103	141	7	99	247	28		
TOTALS	211	17	272	500	35	189	224	290	14	196	500	50		

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC 62	DISTRICT NAME PORTLAND	DIVISION NAME NORTH PACIFIC	MONTHS REPORTED														
			10/83			11/83			12/83								
APPROACH	LOCK PROCESSING TIME			: DELAYED			DELAY			DELAY							
	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	(TONS)	(TONS)	(ALL VSSLS)		
ALL TIMES EXPRESSED IN MINUTES																	
: TONS TIME (TONS) (TONS)																	
(ALL VSSLS)																	
COLUMBIA RIVER																	
BONNEVILLE LOCK & DAM	1	7	34	1	7	77	2	23	129	1	5	30	:	514	44349	86.3	440
THE DALLES DAM	1	5	29	2	6	30	5	22	135	2	5	20	:	328	3736	11.4	75
JOHN DAY LOCK & DAM	1	5	25	1	6	24	10	25	90	1	5	26	:	430	2403	5.6	79
WILLAMETTE RIVER																	
WILLAMETTE FALLS LOCKS 1 - 4	1	1	58	1	2	29	1	37	98	1	1	12	:	192	294	1.5	22
WILLAMETTE FALLS GUARD LOCK	1	1	1	1	1	13	1	1	12	1	1	61	:	206	220	1.1	5

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 10/83 THROUGH 12/83
INSTITUTE FOR WATER RESOURCES

EROC 63	DISTRICT NAME SEATTLE	DIVISION NAME NORTH PACIFIC	MONTHS REPORTED		
			10/83	11/83	12/83
RIVER	LOCK-LOCK NAME		LEN/MID/DRAFT (FT/FT/FT)		
LAKE WASHINGTON SHP CA	01-HIRAM M CHITTENDEN LOCKS 01-HIRAM M CHITTENDEN LOCKS AUX1		0825/0080/30.0 0150/0026/25.0		

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC C3	DISTRICT NAME SEATTLE	DIVISION NAME NORTH PACIFIC						MONTHS REPORTED					
					10/83			11/83			12/83		
RIVER/LOCK NAME	TONS	VESSEL RECRDN	VESSEL OTHER	VESSEL TOTAL	BARGES EMPTY	BARGES FULL	BARGES TOTAL	LOCKGES CARRIER	LOCKGES RECRDN	LOCKGES OTHER	LOCKGES TOTAL	TONNAGE (KTONS) (NAV, OPN, ETC)	
LAKE WASHINGTON SHP CA													
HIRAM M CHITTENDEN LOCKS	XXX												
UPBOUND STATISTICS	202	1063	628	1893	51	187	238	488	29	46	563	324	
DOWNBOUND STATISTICS	247	715	864	1826	175	276	451	459	34	48	541	114	
TOTALS	449	1778	1492	3719	226	463	689	947	63	94	1104	439	
HIRAM M CHITTENDEN LOCKS AUX1	XXX												
UPBOUND STATISTICS	50	2443	1020	3513	27	24	51	1163	648	97	1908	0	
DOWNBOUND STATISTICS	45	2733	747	3525	28	17	45	965	779	94	1838	0	
TOTALS	95	5176	1767	7038	55	41	96	2128	1427	191	3746	0	

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC 63	DISTRICT NAME SEATTLE	DIVISION NAME NORTH PACIFIC	MONTHS REPORTED														
			10/83			11/83			12/83								
ALL TIMES EXPRESSED IN MINUTES																	
APPROACH	LOCK	PROCESSING TIME	ENTRY	CHAMBER	EXIT	:	DELAYED	DELAY	DELAY	DELAY	TIME	Avg	Max	(ALL VSSLS)			
		MIN AVG MAX	MIN AVG MAX	MIN AVG MAX	MIN AVG MAX	:	TONS	(TONS)	(TONS)	(TONS)	(TONS)	(TONS)	(TONS)				
LAKE WASHINGTON SWP CA																	
HIRAM M CHITTENDEN LOCKS	1	3	25	1	4	68	2	15	89	1	5	56	:	422	9879	23.4	485
HIRAM M CHITTENDEN LOCKS AUX	1	1	10	1	2	23	1	4	73	1	5	35	:	15	108	7.2	121

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 10/83 THROUGH 12/83
INSTITUTE FOR WATER RESOURCES

EROC 64	DISTRICT NAME WALLA WALLA	DIVISION NAME NORTH PACIFIC	MONTHS REPORTED	
			10/83	11/83
				12/83
RIVER	LCODE-LOCK NAME		LEN/WID/DRAFT (FT/FT/FT)	
COLUMBIA RIVER	24-MCNARY LOCK & DAM		0650/0084/14.0	
SNAKE RIVER	01-ICE HARBOR LOCK & DAM		0650/0084/14.0	
	02-LOWER MONUMENTAL LOCK & DAM		0650/0084/14.0	
	03-LITTLE GOOSE LOCK & DAM		0650/0084/14.0	
	04-LOWER GRANITE LOCK & DAM		0650/0084/14.0	

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC C4	DISTRICT NAME WALLA WALLA	DIVISION NAME NORTH PACIFIC		MONTHS REPORTED									
				10/83			11/83			12/83			
RIVER/LOCK NAME	TONS	VESSL RECRTH	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS CARRIER	LOCKGS RECRTH	LOCKGS OTHER	LOCKGS TOTAL	TONNAGE (KTONS) (NAV, OPM, ETC)	
COLUMBIA RIVER													
MCNARY LOCK & DAM	XXX												
UPBOUND STATISTICS	203	7	5	215	402	275	677	209	5	2	216	445	
DOWNBOUND STATISTICS	203	8	7	218	69	617	686	213	5	1	219	1543	
TOTALS	406	15	12	433	471	892	1363	422	10	3	435	1988	
SNAKE RIVER													
ICE HARBOR LOCK & DAM	XXX												
UPBOUND STATISTICS	193	21	57	271	435	44	479	242	14	1	257	23	
DOWNBOUND STATISTICS	228	20	23	271	6	480	486	246	14	0	260	1236	
TOTALS	421	41	80	542	441	524	965	498	28	1	517	1259	
LOWER MONUMENTAL LOCK & DAM	XXX												
UPBOUND STATISTICS	135	4	3	142	388	44	432	141	3	3	147	19	
DOWNBOUND STATISTICS	138	5	1	144	6	433	439	141	4	4	149	1091	
TOTALS	273	9	4	286	394	477	871	282	7	7	296	1111	
LITTLE GOOSE LOCK & DAM	XXX												
UPBOUND STATISTICS	134	8	2	144	375	44	419	139	6	4	149	22	
DOWNBOUND STATISTICS	138	12	2	152	8	418	426	142	8	5	155	1045	
TOTALS	272	20	4	296	383	462	845	281	14	9	304	1068	
LOWER GRANITE LOCK & DAM	XXX												
UPBOUND STATISTICS	129	14	4	147	250	40	290	136	14	10	160	18	
DOWNBOUND STATISTICS	127	13	9	149	9	282	291	138	10	8	156	644	
TOTALS	256	27	13	296	259	322	581	274	24	18	316	662	

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC C4	DISTRICT NAME WALLA WALLA	DIVISION NAME NORTH PACIFIC	MONTHS REPORTED														
			10/83			11/83			12/83								
APPROACH	LOCK PROCESSING TIME			ALL TIMES EXPRESSED IN MINUTES			: DELAYED TONS	TIME (TONS)	DELAY AVG (TONS)	DELAY MAX (ALL VESSELS)							
	MIN	AVG	MAX	MIN	AVG	MAX											
COLUMBIA RIVER																	
MCMARY LOCK & DAM	1	5	24	1	6	25	10	16	40	1	7	18	:	405	2330	5.8	60
SNAKE RIVER																	
ICE HARBOR LOCK & DAM	1	3	15	1	4	18	10	23	51	1	4	15	:	421	2086	5.0	68
LOWER MONUMENTAL LOCK & DAM	1	4	24	1	5	25	12	23	38	1	4	13	:	273	1485	5.4	50
LITTLE GOOSE LOCK & DAM	1	4	21	1	4	19	11	19	50	1	5	23	:	272	1215	4.5	40
LOWER GRANITE LOCK & DAM	1	3	20	2	5	23	9	11	38	2	4	11	:	256	1112	4.3	47

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED
H1	HUNTINGTON	OHIO RIVER	10/83 11/83 12/83
RIVER		LCODE-LOCK NAME	LEN/WID/DRAFT (FT/FT/FT)
KANAWHA RIVER		01-WINFIELD LOCKS & DAM MAIN 1	0360/0056/12.0
		01-WINFIELD LOCKS & DAM MAIN 2	0360/0056/12.0
		02-MARMET LOCKS & DAM MAIN 1	0360/0056/12.0
		02-MARMET LOCKS & DAM MAIN 2	0360/0056/12.0
		03-LONDON LOCKS & DAM MAIN 1	0360/0056/12.0
		03-LONDON LOCKS & DAM MAIN 2	0360/0056/12.0
OHIO RIVER		21-BELLEVILLE LOCKS & DAM	1200/0110/12.0
		21-BELLEVILLE LOCKS & DAM AUX 1	0600/0110/12.0
		22-RACINE LOCKS & DAM	1200/0110/12.0
		22-RACINE LOCKS & DAM AUX 1	0600/0110/12.0
		23-GALLIPOLIS LOCKS & DAM	0600/0110/12.0
		23-GALLIPOLIS LOCKS & DAM AUX 1	0360/0110/12.0
		24-GREENUP LOCKS & DAM	1200/0110/12.0
		24-GREENUP LOCKS & DAM AUX 1	0600/0110/12.0
		25-CAPT ANT MELDAHL LOCKS & DAM	1200/0110/12.0
		25-CAPT ANT MELDAHL LK&DAH AUX 1	0600/0110/12.0
		72-WILLOW ISLAND LOCKS & DAM	1200/0110/12.0
		72-WILLOW ISLAND LOCKS & DAM AUX	0600/0110/12.0

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC H1	DISTRICT NAME HUNTINGTON	DIVISION NAME OHIO RIVER						MONTHS REPORTED						
					10/83			11/83			12/83			
RIVER/LOCK NAME		TONS RECRN	VESSL RECRN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS CONMIS	LCKGES RECRN	LCKGES OTHER	LCKGES TOTAL	TONNAGE (KTOMS) (NAV, OPN, ETC)	
KANAWHA RIVER														
WINFIELD LOCKS & DAM MAIN 1		XXX												
UPBOUND STATISTICS		239	2	12	253	842	546	1368	914	3	11	928	837	
DOWNBOUND STATISTICS		253	2	6	261	331	1240	1571	966	0	3	969	1377	
TOTALS		492	4	18	514	1173	1785	2959	1880	3	14	1897	2214	
WINFIELD LOCKS & DAM MAIN 2		XXX												
UPBOUND STATISTICS		221	12	13	246	859	413	1272	740	15	12	767	504	
DOWNBOUND STATISTICS		201	11	18	230	465	611	1076	683	22	18	723	706	
TOTALS		422	23	31	476	1324	1024	2348	1423	37	30	1490	1211	
MARMET LOCKS & DAM MAIN 1		XXX												
UPBOUND STATISTICS		33	1	3	37	115	18	133	99	2	0	101	29	
DOWNBOUND STATISTICS		31	1	7	39	7	133	140	115	3	0	118	165	
TOTALS		64	2	10	76	122	151	273	214	5	0	219	195	
MARMET LOCKS & DAM MAIN 2		XXX												
UPBOUND STATISTICS		315	6	27	348	1244	213	1457	974	14	5	993	251	
DOWNBOUND STATISTICS		309	6	37	352	179	1263	1442	978	11	0	989	1461	
TOTALS		624	12	64	700	1423	1476	2899	1952	25	5	1982	1712	
LONDON LOCKS & DAM MAIN 1		XXX												
UPBOUND STATISTICS		30	1	6	37	79	0	79	59	1	1	61	0	
DOWNBOUND STATISTICS		40	0	2	42	0	112	112	66	0	1	67	117	
TOTALS		70	1	8	79	79	112	191	125	1	2	128	117	
LONDON LOCKS & DAM MAIN 2		XXX												
UPBOUND STATISTICS		136	6	12	154	359	6	365	239	9	1	249	5	
DOWNBOUND STATISTICS		133	5	7	145	2	337	339	237	8	1	246	389	
TOTALS		269	11	19	299	361	343	704	476	17	2	495	394	
OHIO RIVER														
BELLEVILLE LOCKS & DAM		XXX												
UPBOUND STATISTICS		406	0	6	412	908	3475	4383	409	0	2	411	5006	
DOWNBOUND STATISTICS		378	2	12	392	1771	2405	4176	382	0	0	382	3567	
TOTALS		784	2	18	804	2679	5880	8559	791	0	2	793	8573	

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC W1	DISTRICT NAME HUNTINGTON	DIVISION NAME OHIO RIVER						MONTHS REPORTED					
		10/83			11/83			12/83					
RIVER/LOCK NAME	TONS	VESSEL RECRTH	VESSEL OTHER	VESSEL TOTAL	BARGES EMPTY	BARGES FULL	BARGES TOTAL	LOCKGS CONNER	LCKGES RECRTH	LCKGES OTHER	LCKGES TOTAL	TONNAGE (KTONS)	
OHIO RIVER													
BELLEVILLE LOCKS & DAM AUX 1													
UPBOUND STATISTICS	30	17	6	53	26	59	85	37	12	4	53	62	
DOWNBOUND STATISTICS	47	25	12	84	90	51	141	59	17	3	79	45	
TOTALS	77	42	18	137	116	110	226	96	29	7	132	107	
RACINE LOCKS & DAM													
UPBOUND STATISTICS	444	1	9	454	1239	3540	4779	446	0	3	449	5122	
DOWNBOUND STATISTICS	404	1	10	415	1760	2691	4431	408	0	1	409	3751	
TOTALS	848	2	19	869	2999	6231	9230	854	0	4	858	8873	
RACINE LOCKS & DAM AUX 1													
UPBOUND STATISTICS	38	21	8	67	92	36	128	50	14	1	65	62	
DOWNBOUND STATISTICS	63	23	9	95	108	107	215	74	17	2	93	100	
TOTALS	101	44	17	162	200	143	343	124	31	3	158	162	
CALIPPOLIS LOCKS & DAM													
UPBOUND STATISTICS	451	1	20	472	860	3344	4204	755	0	3	758	5033	
DOWNBOUND STATISTICS	420	4	24	448	1703	2255	3958	702	1	1	704	3256	
TOTALS	871	5	44	920	2563	5599	8162	1457	1	4	1462	8309	
CALIPPOLIS LOCKS & DAM AUX 1													
UPBOUND STATISTICS	22	15	8	45	34	45	79	37	16	6	59	74	
DOWNBOUND STATISTICS	28	18	16	62	59	36	95	53	21	4	80	44	
TOTALS	50	33	24	107	93	81	174	92	37	10	139	119	
GREENUP LOCKS & DAM													
UPBOUND STATISTICS	511	0	6	517	3330	1815	5145	515	0	0	515	2793	
DOWNBOUND STATISTICS	494	0	5	489	741	4093	4834	486	0	0	486	6111	
TOTALS	995	0	11	1006	4071	5908	9979	1001	0	0	1001	8905	
GREENUP LOCKS & DAM AUX 1													
UPBOUND STATISTICS	70	222	38	330	111	47	158	109	109	0	218	65	
DOWNBOUND STATISTICS	82	169	43	294	115	77	192	127	94	1	222	109	
TOTALS	152	391	81	624	226	124	350	236	203	1	440	175	

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC H1	DISTRICT NAME HUNTINGTON	DIVISION NAME OHIO RIVER		MONTHS REPORTED									
					10/83			11/83			12/83		
RIVER/LOCK NAME	TONS	VESSEL RECRN	VESSEL OTHER	VESSEL TOTAL	BARGES EMPTY	BARGES FULL	BARGES TOTAL	LOCKGS CARRIER	LOCKGS RECRN	LOCKGS OTHER	LOCKGS TOTAL	TONNAGE (KTONS)	
OHIO RIVER													
CAPT ANT MELDAHL LOCKS & DAM	XXX												
UPBOUND STATISTICS	497	0	9	506	2971	2170	5141	499	0	0	499	3374	
DOWNBOUND STATISTICS	473	1	6	480	766	4184	4950	476	0	0	476	6248	
TOTALS	970	1	15	986	3737	6354	10091	975	0	0	975	9623	
CAPT ANT MELDAHL LK&DAM AUX 1	XXX												
UPBOUND STATISTICS	28	108	6	142	43	31	74	37	69	1	107	52	
DOWNBOUND STATISTICS	48	148	9	205	80	53	133	58	96	0	154	63	
TOTALS	76	256	15	347	123	84	207	95	165	1	261	116	
MILLION ISLAND LOCKS & DAM	XXX												
UPBOUND STATISTICS	404	1	5	410	1116	3196	4312	406	1	0	407	4449	
DOWNBOUND STATISTICS	383	0	1	384	1525	2540	4065	385	0	0	385	3587	
TOTALS	787	1	6	794	2641	5736	8377	791	1	0	792	8036	
MILLION ISLAND LOCKS & DAM AUX	XXX												
UPBOUND STATISTICS	57	18	24	99	145	35	180	86	13	2	101	42	
DOWNBOUND STATISTICS	81	25	16	122	109	149	258	101	20	1	122	120	
TOTALS	138	43	40	221	254	184	438	187	33	3	223	162	

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC H1	DISTRICT NAME HUNTINGTON	DIVISION NAME OHIO RIVER	MONTHS REPORTED														
			10/83			11/83			12/83								
ALL TIMES EXPRESSED IN MINUTES																	
			APPROACH	ENTRY	LOCK PROCESSING TIME	CHAMBER	EXIT		DELAYED	TIME	DELAY	DELAY					
			MIN	Avg	MAX	MIN	Avg	MAX	MIN	Avg	MAX	(TONS)	(TONS)	(ALL VSSLS)			
KANAWHA RIVER																	
WINFIELD LOCKS & DAM MAIN 1	1	11	95	1	4	39	5	10	30	1	12	66	:	258	33957	131.6	752
WINFIELD LOCKS & DAM MAIN 2	1	11	140	1	4	35	5	10	41	1	11	108	:	179	22427	125.3	500
MARMET LOCKS & DAM MAIN 1	1	9	37	1	4	14	5	8	21	2	9	37	:	24	2565	106.9	270
MARMET LOCKS & DAM MAIN 2	1	9	62	1	4	23	5	8	30	2	10	50	:	356	72535	203.8	930
LONDON LOCKS & DAM MAIN 1	1	8	24	1	5	13	7	10	20	2	7	24	:	11	2058	187.1	486
LONDON LOCKS & DAM MAIN 2	1	9	47	1	5	20	6	9	29	2	7	28	:	51	12162	238.5	541
OHIO RIVER																	
BELLEVILLE LOCKS & DAM	1	18	57	1	9	30	6	12	32	1	8	32	:	252	9830	39.0	227
BELLEVILLE LOCKS & DAM AUX 1	1	15	36	1	4	18	9	12	22	1	4	11	:	0	0	0.0	6
RACINE LOCKS & DAM	1	17	622	1	11	45	8	11	45	2	9	38	:	302	19365	64.1	975
RACINE LOCKS & DAM AUX 1	2	12	40	2	6	16	7	10	22	2	6	13	:	3	45	15.0	25
GALLIPOLIS LOCKS & DAM	1	10	107	2	12	95	5	11	25	2	18	90	:	602	117262	194.8	1330
GALLIPOLIS LOCKS & DAM AUX 1	1	6	30	2	7	31	5	12	21	2	9	48	:	10	2465	246.5	740
GREENUP LOCKS & DAM	1	16	60	2	10	28	7	11	23	2	9	26	:	358	17295	48.3	558
GREENUP LOCKS & DAM AUX 1	1	8	38	1	4	22	6	10	15	1	5	18	:	7	96	13.7	25
CAPT ANT MELDWAL LOCKS & DAM	1	19	58	1	10	30	7	13	27	2	11	30	:	414	24623	59.5	270

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 10/83 THROUGH 12/83
INSTITUTE FOR WATER RESOURCES

EROC H1	DISTRICT NAME HUNTINGTON	DIVISION NAME OHIO RIVER	10/83	11/83	12/83	MONTHS REPORTED											
						ALL TIMES EXPRESSED IN MINUTES											
	APPROACH	LOCK PROCESSING TIME															
		ENTRY	CHAMBER	EXIT	: TOWS	DELAY	DELAY										
	MIN	AVG	MAX	MIN	AVG	TIME	Avg	MAX									
	MIN	AVG	MAX	MIN	AVG	MAX	(TONS)	(TONS)									
								(ALL VSSLS)									
OHIO RIVER																	
CAPT ANT MELDAHL LK&DAM AUX	1	9	40	1	3	26	6	13	34	1	5	20	:	2	1480	740.0	1440
WILLOW ISLAND LOCKS & DAM	1	16	60	2	8	31	6	13	42	1	9	35	:	239	10572	44.2	231
WILLOW ISLAND LOCKS & DAM AU	1	12	45	1	3	15	8	13	25	1	6	15	:	7	244	34.9	51

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC H2	DISTRICT NAME LOUISVILLE	DIVISION NAME OHIO RIVER	MONTHS REPORTED		
			10/83	11/83	12/83
RIVER		LCODE-LOCK NAME	LEN/MID/DRAFT (FT/FT/FT)		
GREEN/BARREN RIVER		21-LOCK & DAM 1	0600/0084/12.0		
		22-LOCK & DAM 2	0600/0084/12.0		
		23-LOCK & DAM 3	0138/0036/12.0		
OHIO RIVER		41-MARLLAND LOCKS & DAM	1200/0110/12.0		
		41-MARLLAND LOCKS & DAM AUX 1	0600/0110/12.0		
		42-MCALPINE LOCKS & DAM	1200/0110/12.0		
		42-MCALPINE LOCKS & DAM AUX 1	0600/0110/12.0		
		50-LOCK & DAM 50	0600/0110/12.0		
		51-LOCK & DAM 51	0600/0110/12.0		
		52-LOCK & DAM 52	1200/0110/12.0		
		52-LOCK & DAM 52 AUX 1	0600/0110/12.0		
		53-LOCK & DAM 53	0600/0110/12.0		
		75-CANNELTON LOCK & DAM	1200/0110/12.0		
		75-CANNELTON LOCK & DAM AUX	0600/0110/12.0		
		76-MENBURGH LOCK & DAM	1200/0110/12.0		
		76-MENBURGH LOCK & DAM AUX 1	0600/0110/12.0		
		77-UNIONTOWN LOCK & DAM	1200/0110/12.0		
		77-UNIONTOWN LOCK & DAM AUX 1	0600/0110/12.0		
		78-SMITHLAND LOCK & DAM	1200/0110/12.0		
		78-SMITHLAND LOCK & DAM AUX 1	1200/0110/12.0		

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 10/83 THROUGH 12/83
INSTITUTE FOR WATER RESOURCES

TABLE 2

 PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC H2	DISTRICT NAME LOUISVILLE	DIVISION NAME OHIO RIVER		MONTHS REPORTED									
				10/83			11/83			12/83			
RIVER/LOCK NAME	TONS RECRTN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS CONMER	LCKGES RECRTN	LCKGES OTHER	LCKGES TOTAL	TONNAGE (KTONS)		
OHIO RIVER													
LOCK & DAM 50	NO DATA RECORDED FOR THIS LOCK												
LOCK & DAM 51	NO DATA RECORDED FOR THIS LOCK												
LOCK & DAM 52	XXX												
UPBOUND STATISTICS	891	2	79	972	4923	4472	9395	289	0	443	932	6895	
DOWNBOUND STATISTICS	895	8	88	991	2397	4582	8979	320	2	643	965	9417	
TOTALS	1786	10	167	1963	7320	11054	18374	609	2	1286	1897	16313	
LOCK & DAM 52 AUX 1	XXX ONLY FIRST AND SECOND MONTHS REPORTED												
UPBOUND STATISTICS	200	9	47	256	365	547	912	239	6	2	247	923	
DOWNBOUND STATISTICS	173	20	39	232	218	573	791	207	14	2	223	877	
TOTALS	373	29	86	488	583	1120	1703	446	20	4	470	1800	
LOCK & DAM 53	NO DATA RECORDED FOR THIS LOCK												
CANNELTON LOCK & DAM	XXX												
UPBOUND STATISTICS	535	7	6	548	1855	3480	5335	540	2	0	542	5443	
DOWNBOUND STATISTICS	509	2	6	517	1423	3716	5139	515	0	0	515	5401	
TOTALS	1044	9	12	1065	3278	7196	10474	1055	2	0	1057	10844	
CANNELTON LOCK & DAM AUX	XXX												
UPBOUND STATISTICS	31	25	11	67	113	15	128	43	12	3	58	21	
DOWNBOUND STATISTICS	51	60	10	121	56	107	163	59	32	2	93	137	
TOTALS	82	85	21	188	169	122	291	102	44	5	151	158	
NEWBURCH LOCK & DAM	XXX												
UPBOUND STATISTICS	635	8	20	663	2656	3575	6231	640	2	2	644	5642	
DOWNBOUND STATISTICS	617	20	29	666	1816	4145	5961	622	4	0	626	5965	
TOTALS	1252	28	49	1329	4472	7720	12192	1262	6	2	1270	11608	
NEWBURCH LOCK & DAM AUX 1	XXX												
UPBOUND STATISTICS	71	166	53	290	65	133	198	108	79	1	188	213	
DOWNBOUND STATISTICS	89	191	33	313	172	50	222	110	90	2	202	71	
TOTALS	160	357	86	603	237	183	420	218	169	3	390	285	

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC H2	DISTRICT NAME LOUISVILLE	DIVISION NAME OHIO RIVER						MONTHS REPORTED					
								10/83		11/83		12/83	
RIVER/LOCK NAME	TONS	VESSL RECRTN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES	LOCKGS COMMER	LCKGES RECRTN	LCKGES OTHER	LCKGES TOTAL	TONNAGE (KTONS)	
OHIO RIVER													
UNIONTOWN LOCK & DAM	XXX												
UPBOUND STATISTICS	688	26	31	745	4375	3076	7451	690	3	1	694	4939	
DOWNBOUND STATISTICS	654	10	14	678	1374	5686	7060	660	2	2	664	8458	
TOTALS	1342	36	45	1423	5749	8762	14511	1350	5	3	1358	13397	
UNIONTOWN LOCK & DAM AUX 1	XXX												
UPBOUND STATISTICS	40	173	17	230	93	25	118	54	135	2	191	40	
DOWNBOUND STATISTICS	34	193	45	272	63	24	87	64	152	1	217	33	
TOTALS	74	366	62	502	156	49	205	118	287	3	408	73	
SMITHLAND LOCK & DAM	XXX												
UPBOUND STATISTICS	135	9	18	162	671	380	1051	147	6	8	161	612	
DOWNBOUND STATISTICS	680	59	43	782	1063	5913	6976	705	31	13	749	8887	
TOTALS	815	68	61	944	1734	6293	8027	852	37	21	910	9500	
SMITHLAND LOCK & DAM AUX 1	XXX												
UPBOUND STATISTICS	705	55	33	793	4766	2723	7489	720	18	10	748	4383	
DOWNBOUND STATISTICS	133	23	15	171	325	934	1259	145	17	7	169	1424	
TOTALS	838	78	48	964	5091	3857	8748	865	35	17	917	5808	

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC H2	DISTRICT NAME LOUISVILLE	DIVISION NAME OHIO RIVER	MONTHS REPORTED														
			10/83			11/83			12/83								
APPROACH	LOCK PROCESSING TIME			: DELAYED			DELAY			DELAY							
	ENTRY MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	(TONS)	(TONS)	(ALL VSSLS)		
GREEN/BARREN RIVER																	
LOCK & DAM 1	1	5	65	1	3	10	1	7	69	1	4	50	:	123	2576	20.9	106
LOCK & DAM 2	1	4	22	1	3	15	5	11	77	1	4	27	:	108	3407	31.5	1240
LOCK & DAM 3	NO DATA RECORDED FOR THIS LOCK																
OHIO RIVER																	
MARLLAND LOCKS & DAM	1	23	102	1	8	50	3	13	44	2	9	70	:	450	27222	60.5	661
MARLLAND LOCKS & DAM AUX 1	1	10	81	1	3	24	5	12	22	1	5	15	:	5	115	23.0	75
MCALPINE LOCKS & DAM	1	18	115	1	9	37	5	12	45	1	8	66	:	602	34339	57.0	743
MCALPINE LOCKS & DAM AUX 1	NO DATA RECORDED FOR THIS LOCK																
LOCK & DAM 50	NO DATA RECORDED FOR THIS LOCK																
LOCK & DAM 51	NO DATA RECORDED FOR THIS LOCK																
LOCK & DAM 52	1	5	95	1	6	32	1	7	80	1	8	75	:	584	431596	739.0	6680
LOCK & DAM 52 AUX 1	1	12	88	1	11	50	5	15	55	1	12	100	:	250	209423	837.7	5910
LOCK & DAM 53	NO DATA RECORDED FOR THIS LOCK																
CANNELTON LOCK & DAM	1	26	110	2	7	30	5	11	50	1	8	40	:	491	31593	64.3	425
CANNELTON LOCK & DAM AUX	1	20	85	1	4	20	5	10	21	1	4	25	:	6	456	76.0	160
NEWBURGH LOCK & DAM	1	16	79	1	6	30	5	7	56	1	10	76	:	522	21132	40.5	230

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC N2	DISTRICT NAME LOUISVILLE	DIVISION NAME OHIO RIVER	MONTHS REPORTED														
			10/83			11/83			12/83								
APPROACH	LOCK PROCESSING TIME			ALL TIMES EXPRESSED IN MINUTES			: TONS	: TIME	DELAY (TONS)	DELAY (TONS)	DELAY AVG	DELAY MAX	DELAY (ALL VSSLS)				
	MIN	AVG	MAX	MIN	AVG	MAX											
OHIO RIVER																	
NEWBURGH LOCK & DAM AUX 1	1	9	44	1	3	25	5	7	12	1	5	20	:	6	69	11.5	25
UNIONTOWN LOCK & DAM	1	19	103	1	7	30	5	9	70	1	7	65	:	608	29429	48.4	279
UNIONTOWN LOCK & DAM AUX 1	1	6	52	1	2	15	5	9	23	1	2	25	:	1	89	89.0	89
SMITHLAND LOCK & DAM	1	17	115	1	9	25	5	10	65	1	8	85	:	133	38765	291.5	2445
SMITHLAND LOCK & DAM AUX 1	1	14	225	1	9	30	1	11	800	1	8	70	:	131	30287	231.2	2495

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC H3	DISTRICT NAME NASHVILLE	DIVISION NAME OHIO RIVER	MONTHS REPORTED			
			10/83	11/83	12/83	
RIVER	LCODE-LOCK NAME		LEN/WID/DRAFT (FT/FT/FT)			
CLINCH RIVER	11-MELTON MILL LOCK		0400/0075/11.0			
CUMBERLAND RIVER	21-BARKLEY LOCK		0800/0110/11.0			
	22-CHEATHAN LOCK		0800/0110/11.0			
	23-CORDELL HULL LOCK		0400/0084/11.0			
	24-OLD HICKORY LOCK		0400/0084/11.0			
TENNESSEE RIVER	01-KENTUCKY LOCK		0600/0110/11.0			
	02-PICKNICK LANDING LOCK		1000/0110/11.0			
	02-PICKNICK LANDING LOCK AUX		0600/0110/11.0			
	03-WILSON LOCK		0600/0110/11.0			
	03-WILSON LOCK AUX		0292/0060/11.0			
	04-GEN JOS WHEELER LOCK	AUX1	0600/0110/11.0			
	04-GEN JOS WHEELER LK		0400/0060/11.0			
	05-GUNTERSVILLE LOCK		0600/0110/11.0			
	05-GUNTERSVILLE LOCK	AUX 1	0360/0060/11.0			
	06-HICKAJAC LOCK		0600/0110/11.0			
	07-CHICKAMAUGA LOCK		0360/0060/11.0			
	08-WATTS BAR LOCK		0360/0060/11.0			
	09-FORT LOUDON LOCK		0360/0060/11.0			

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC N3	DISTRICT NAME NASHVILLE	DIVISION NAME OHIO RIVER	MONTHS REPORTED											
			10/83				11/83				12/83			
RIVER/LOCK NAME	TOWS	VESSL RECRTN	VESSL OTHER	VESSL TOTAL	BARCS EMPTY	BARCS FULL	BARCES TOTAL	LOCKGS CONVER	LCKGES RECRTN	LCKGES OTHER	LCKGES TOTAL	TONNAGE (KTONS) (NAV, DPW, ETC)		
CLINCH RIVER														
MELTON HILL LOCK	XXX													
UPBOUND STATISTICS	1	1	1	3	1	0	1	3	0	3	6	0		
DOWNBOUND STATISTICS	1	2	1	4	0	1	1	3	1	3	7	0		
TOTALS	2	3	2	7	1	1	2	6	1	6	13	0		
CUMBERLAND RIVER														
BARKLEY LOCK	XXX													
UPBOUND STATISTICS	44	31	4	79	10	299	309	52	20	5	77	431		
DOWNBOUND STATISTICS	90	34	5	129	715	20	735	121	28	5	154	29		
TOTALS	134	65	9	208	725	319	1044	173	48	10	231	461		
CHEATHAM LOCK	XXX													
UPBOUND STATISTICS	103	48	0	151	21	556	577	113	40	5	158	864		
DOWNBOUND STATISTICS	100	38	6	144	546	32	578	116	31	5	152	43		
TOTALS	203	86	6	295	567	588	1155	229	71	10	310	908		
CORDELL HULL LOCK	NO DATA RECORDED FOR THIS LOCK													
OLD HICKORY LOCK	XXX													
UPBOUND STATISTICS	42	112	13	167	9	92	101	64	75	6	145	147		
DOWNBOUND STATISTICS	32	112	21	165	88	2	90	64	78	9	151	38		
TOTALS	74	224	34	332	97	94	191	128	153	15	296	185		
TENNESSEE RIVER														
KENTUCKY LOCK	XXX													
UPBOUND STATISTICS	449	24	52	525	989	3290	4279	753	26	9	788	4861		
DOWNBOUND STATISTICS	391	14	53	458	2448	1342	3790	653	17	7	677	1812		
TOTALS	840	38	105	983	3437	4632	8069	1406	43	16	1465	6673		

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

ENOC N3	DISTRICT NAME NASHVILLE	DIVISION NAME OHIO RIVER	MONTHS REPORTED											
			10/83				11/83				12/83			
RIVER/LOCK NAME	TONS	VESSEL RECRTH	VESSEL OTHER	VESSEL TOTAL	BARGES EMPTY	BARGES FULL	BARGES TOTAL	LOCKGS CARRIER	LOCKGS RECRTH	LOCKGS OTHER	LOCKGS TOTAL	TONNAGE (KTONS) (NAV, OPN, ETC)		
TENNESSEE RIVER														
PICKWICK LANDING LOCK														
UPBOUND STATISTICS	242	37	18	297	220	2385	2605	410	43	34	487	3429		
DOWNBOUND STATISTICS	229	26	18	273	1887	522	2409	388	34	36	458	736		
TOTALS	471	63	36	570	2107	2907	5014	798	77	70	945	4166		
PICKWICK LANDING LOCK AUX		NO DATA RECORDED FOR THIS LOCK												
WILSON LOCK														
UPBOUND STATISTICS	125	87	56	268	239	1071	1310	236	54	18	308	1508		
DOWNBOUND STATISTICS	136	82	46	264	716	483	1199	232	57	13	302	644		
TOTALS	261	169	102	532	955	1554	2509	468	111	31	610	2173		
WILSON LOCK AUX		NO DATA RECORDED FOR THIS LOCK												
GEN JOS WHEELER LOCK														
UPBOUND STATISTICS	123	65	4	192	219	1050	1269	191	58	8	257	1471		
DOWNBOUND STATISTICS	118	42	6	166	241	450	1151	179	33	7	239	622		
TOTALS	241	107	10	358	40	1500	2420	370	111	15	496	2094		
GEN JOS WHEELER LK	AUX1													
UPBOUND STATISTICS	0	28	0	28	0	0	0	0	21	0	21	0		
DOWNBOUND STATISTICS	0	48	0	48	0	0	0	0	28	0	28	0		
TOTALS	0	76	0	76	0	0	0	0	49	0	49	0		
COUNTERSVILLE LOCK														
UPBOUND STATISTICS	135	126	1	262	342	809	1151	189	83	5	277	1153		
DOWNBOUND STATISTICS	135	133	4	272	574	520	1094	181	94	2	277	678		
TOTALS	270	259	5	534	916	1329	2245	370	177	7	554	1831		
COUNTERSVILLE LOCK	AUX 1													
UPBOUND STATISTICS	0	67	0	67	0	0	0	1	52	0	53	0		
DOWNBOUND STATISTICS	0	60	0	60	0	0	0	0	45	0	45	0		
TOTALS	0	127	0	127	0	0	0	1	97	0	98	0		

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC H3	DISTRICT NAME NASHVILLE	DIVISION NAME OHIO RIVER						MONTHS REPORTED					
		10/83			11/83			12/83					
RIVER/LOCK NAME	TONS	VESSEL RECRTH	VESSEL OTHER	VESSEL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGES CARRIER	LCKGES RECRTH	LCKGES OTHER	LCKGES TOTAL	TONNAGE (KTONS)	
TENNESSEE RIVER													
NICKAJAC LOCK													
UPBOUND STATISTICS	143	91	10	244	375	653	1028	192	47	3	242	882	
DOWNBOUND STATISTICS	144	107	13	264	532	499	1031	197	56	1	254	678	
TOTALS	287	198	23	508	907	1152	2059	389	103	4	496	1561	
CHICKAMAUGA LOCK													
UPBOUND STATISTICS	52	447	3	502	53	231	284	117	234	118	469	317	
DOWNBOUND STATISTICS	51	463	7	521	179	167	286	117	250	112	479	149	
TOTALS	103	910	10	1023	232	338	570	234	484	230	948	466	
WATTS BAR LOCK													
UPBOUND STATISTICS	42	57	0	99	72	86	158	101	100	10	211	135	
DOWNBOUND STATISTICS	42	64	1	107	48	114	162	99	105	12	216	148	
TOTALS	84	121	1	206	120	200	320	200	205	22	427	284	
FORT LOUDON LOCK													
UPBOUND STATISTICS	30	45	3	78	15	53	68	54	55	11	120	91	
DOWNBOUND STATISTICS	28	52	5	85	37	31	68	51	63	11	125	44	
TOTALS	58	97	8	163	52	84	136	105	118	22	245	136	

TABLE 3

 PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC K3	DISTRICT NAME NASHVILLE	DIVISION NAME OHIO RIVER	MONTHS REPORTED											
			10/83				11/83				12/83			
ALL TIMES EXPRESSED IN MINUTES														
			APPROACH	ENTRY	CHAMBER	EXIT	: TONS	DELAY	TIME	DELAY	AVG	MAX		
			MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	(TONS)	(TONS)	(ALL VSSLS)
CLINCH RIVER														
MELTON HILL LOCK			2	8	19	2	2	5	11	15	21	1	2	3 :
CUMBERLAND RIVER														
BARKLEY LOCK			1	14	52	1	9	25	7	16	39	1	9	36 :
CHEATHAM LOCK			1	9	40	2	10	88	6	19	62	1	8	52 :
CORDELL HULL LOCK			NO DATA RECORDED FOR THIS LOCK											
OLD HICKORY LOCK			1	3	30	1	6	40	10	18	53	1	6	62 :
TENNESSEE RIVER														
KENTUCKY LOCK			1	9	91	1	14	66	11	18	55	1	18	121 :
PICKWICK LANDING LOCK			1	9	128	2	13	75	9	17	173	1	20	406 :
PICKWICK LANDING LOCK AUX			NO DATA RECORDED FOR THIS LOCK											
WILSON LOCK			1	10	93	2	14	55	6	23	62	2	15	73 :
WILSON LOCK AUX			NO DATA RECORDED FOR THIS LOCK											
GEN JOS WHEELER LOCK			1	14	86	3	14	48	6	14	27	1	18	92 :
GEN JOS WHEELER LK	AUX		1	9	28	1	3	8	10	13	17	2	4	10 :
CUNTERSVILLE LOCK			1	10	98	1	10	192	6	15	30	1	15	199 :
CUNTERSVILLE LOCK	AUX		1	3	14	1	2	19	6	13	23	1	2	5 :
NICKAJAC LOCK			1	10	99	1	11	52	6	14	26	1	13	69 :

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC H3	DISTRICT NAME NASHVILLE	DIVISION NAME OHIO RIVER	MONTHS REPORTED											
			10/83			11/83			12/83					
ALL TIMES EXPRESSED IN MINUTES														
			APPROACH	ENTRY	LOCK PROCESSING TIME	CHAMBER	EXIT	:	DELAYED	DELAY	DELAY			
			MIN	Avg	MAX	MIN	Avg	MAX	MIN	Avg	MAX	(TONS)	(TONS)	(TONS)
TENNESSEE RIVER														
CHICKAMAUGA LOCK			1	4	75	1	5	37	8	13	35	1	6	78
WATTS BAR LOCK			1	8	75	1	5	20	11	16	23	1	9	58
FORT LOUDON LOCK			1	10	70	1	4	16	7	21	27	1	9	75

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC H4	DISTRICT NAME PITTSBURGH	DIVISION NAME OHIO RIVER	MONTHS REPORTED 10/83	MONTHS REPORTED 11/83	MONTHS REPORTED 12/83
RIVER		LCODE-LOCK NAME	LEN/HID/DRAFT (FT/FT/FT)		
ALLEGHENY RIVER	42-LOCK & DAM 2		0360/0056/13.0		
	43-LOCK & DAM 3		0360/0056/13.0		
	44-LOCK & DAM 4		0360/0056/13.0		
	45-LOCK & DAM 5		0360/0056/13.0		
	46-LOCK & DAM 6		0360/0056/13.0		
	47-LOCK & DAM 7		0360/0056/13.0		
	48-LOCK & DAM 8		0360/0056/13.0		
	49-LOCK & DAM 9		0360/0056/13.0		
MONONGAHELA RIVER	22-LOCK & DAM 2		0720/0110/13.0		
	22-LOCK & DAM 2 AUX 1		0360/0056/13.0		
	23-LOCK & DAM 3		0720/0056/13.0		
	23-LOCK & DAM 3 AUXILIARY 1		0360/0056/13.0		
	24-LOCK & DAM 4		0720/0056/13.0		
	24-LOCK & DAM 4 AUXILIARY 1		0360/0056/13.0		
	25-MAXWELL LOCK & DAM		0720/0084/13.0		
	25-MAXWELL LOCK & DAM AUX 1		0720/0084/13.0		
	27-LOCK & DAM 7		0360/0056/13.0		
	28-LOCK & DAM 8		0360/0056/13.0		
	29-MORGANTOWN LOCK & DAM		0600/0084/13.0		
	30-HILDEBRAND LOCK & DAM		0600/0084/13.0		
	31-OPEKISKA LOCK & DAM		0600/0084/13.0		
OHIO RIVER	01-EMSWORTH LOCK & DAM		0600/0110/13.0		
	01-EMSWORTH LOCK & DAM AUX 1		0360/0056/13.0		
	02-DASHIELDS LOCK & DAM		0600/0110/13.0		
	02-DASHIELDS LOCK & DAM AUX 1		0360/0056/13.0		
	03-MONTGOMERY LOCK & DAM		0600/0110/13.0		
	03-MONTGOMERY LOCK & DAM AUX 1		0360/0056/13.0		
	04-NEW CUMBERLAND LOCK & DAM		1200/0110/13.0		
	04-NEW CUMBERLAND LK & DAM AUX 1		0600/0110/13.0		
	05-PIKE ISLAND LOCK & DAM		1200/0110/13.0		
	05-PIKE ISLAND LOCK & DAM AUX 1		0600/0110/13.0		
	71-HANNIBAL LOCKS & DAM		1200/0110/13.0		
	71-HANNIBAL LOCKS & DAM AUX 1		0600/0110/13.0		

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC H4	DISTRICT NAME PITTSBURGH	DIVISION NAME OHIO RIVER						MONTHS REPORTED						
		10/83			11/83			12/83						
RIVER/LOCK NAME	TONS	VESSL RECRTN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS CARRIER	LCKGES RECRTN	LCKGES OTHER	LCKGES TOTAL	TONNAGE (KTONS)	(NAV, OPM, ETC)	
ALLEGHENY RIVER														
LOCK & DAM 2	XXX													
UPBOUND STATISTICS	228	221	20	469	385	286	671	347	144	2	493	313		
DOWNBOUND STATISTICS	219	214	26	459	284	347	631	332	153	3	488	201		
TOTALS	447	435	46	928	669	633	1302	679	297	5	981	515		
LOCK & DAM 3	XXX													
UPBOUND STATISTICS	229	86	22	337	383	299	682	350	79	2	431	327		
DOWNBOUND STATISTICS	226	90	24	340	305	349	654	338	84	2	424	199		
TOTALS	455	176	46	677	688	648	1336	688	163	4	855	527		
LOCK & DAM 4	XXX													
UPBOUND STATISTICS	188	80	24	292	621	68	689	259	66	2	327	89		
DOWNBOUND STATISTICS	192	92	15	299	78	613	691	254	68	2	324	311		
TOTALS	380	172	39	591	699	681	1380	513	134	4	651	401		
LOCK & DAM 5	XXX													
UPBOUND STATISTICS	132	54	7	193	557	2	559	153	46	2	201	0		
DOWNBOUND STATISTICS	136	64	2	202	20	551	571	157	51	2	210	233		
TOTALS	268	118	9	395	577	553	1130	310	97	4	411	234		
LOCK & DAM 6	XXX													
UPBOUND STATISTICS	131	41	10	182	550	3	553	155	32	2	189	0		
DOWNBOUND STATISTICS	141	35	1	177	27	551	578	162	26	2	190	233		
TOTALS	272	76	11	359	577	554	1131	317	58	4	379	233		
LOCK & DAM 7	XXX													
UPBOUND STATISTICS	17	39	2	58	10	20	30	21	27	0	48	8		
DOWNBOUND STATISTICS	14	35	3	52	20	8	28	19	21	0	40	3		
TOTALS	31	74	5	110	30	28	58	40	48	0	88	11		
LOCK & DAM 8	XXX	ONLY FIRST AND SECOND MONTHS REPORTED												
UPBOUND STATISTICS	0	25	0	25	0	0	0	3	12	0	15	0		
DOWNBOUND STATISTICS	0	27	0	27	0	0	0	2	16	1	19	0		
TOTALS	0	52	0	52	0	0	0	5	28	1	34	0		

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC #4	DISTRICT NAME PITTSBURGH	DIVISION NAME OHIO RIVER	MONTHS REPORTED									
			10/83			11/83			12/83			
RIVER/LOCK NAME	TONS	VESSL RECRTN	VESSL OTHER	VESSL TOTAL	BARCS EMPTY	BARCS FULL	BARGES TOTAL	LOCKGS COMMER	LCKGES RECRTN	LCKGES OTHER	LCKGES TOTAL	TONNAGE (KTONS) (NAV, OPN, ETC)
ALLENTOWN RIVER												
LOCK & DAM 9	XXX	ONLY FIRST MONTH REPORTED										
UPBOUND STATISTICS	0	12	0	12	0	0	0	0	9	0	9	0
DOWNBOUND STATISTICS	0	13	0	13	0	0	0	2	10	0	12	0
TOTALS	0	25	0	25	0	0	0	2	19	0	21	0
MONONGAHELA RIVER												
LOCK & DAM 2	XXX											
UPBOUND STATISTICS	444	0	3	447	1809	902	2711	472	0	1	473	1133
DOWNBOUND STATISTICS	446	0	1	447	466	2287	2753	472	0	0	472	2366
TOTALS	890	0	4	894	2275	3189	5464	944	0	1	945	3500
LOCK & DAM 2 AUX 1	XXX											
UPBOUND STATISTICS	145	43	62	250	108	107	215	212	32	3	247	80
DOWNBOUND STATISTICS	128	36	72	236	139	53	192	201	30	3	234	62
TOTALS	273	79	134	486	247	160	407	413	62	6	481	143
LOCK & DAM 3	XXX											
UPBOUND STATISTICS	819	0	8	827	3665	530	4195	820	0	0	820	614
DOWNBOUND STATISTICS	844	0	3	847	355	3861	4216	844	0	0	844	3832
TOTALS	1663	0	11	1674	4020	4391	8411	1664	0	0	1664	4446
LOCK & DAM 3 AUXILIARY 1	XXX											
UPBOUND STATISTICS	123	23	125	271	151	46	197	244	19	5	268	43
DOWNBOUND STATISTICS	105	22	117	244	46	101	147	219	18	4	241	103
TOTALS	228	45	242	515	197	147	344	463	37	9	509	147
LOCK & DAM 4	XXX											
UPBOUND STATISTICS	669	0	5	674	3290	435	3725	700	0	1	701	440
DOWNBOUND STATISTICS	716	0	1	717	263	3533	3796	734	0	0	734	3485
TOTALS	1385	0	6	1391	3553	3968	7521	1434	0	1	1435	3925

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC H4	DISTRICT NAME PITTSBURGH	DIVISION NAME OHIO RIVER						MONTHS REPORTED						
		10/83			11/83			12/83						
RIVER/LOCK NAME	TONS	VESSEL RECRDN	VESSEL OTHER	VESSEL TOTAL	BARGES EMPTY	BARGES FULL	BARGES TOTAL	LOCKGS CONNER	LOCKGS RECRDN	LOCKGS OTHER	LOCKGS TOTAL	TONNAGE (KTOMS)		
MONONGAHELA RIVER														
LOCK & DAM 4 AUXILIARY 1	XXX													
UPBOUND STATISTICS	62	32	54	148	99	16	115	117	25	4	146	14		
DOWNBOUND STATISTICS	27	31	42	100	26	18	44	68	27	3	98	18		
TOTALS	89	63	96	248	125	34	159	185	52	7	244	33		
MAXWELL LOCK & DAM	XXX													
UPBOUND STATISTICS	548	46	6	600	2691	320	3011	554	29	4	587	340		
DOWNBOUND STATISTICS	138	25	15	178	43	679	722	153	14	4	171	658		
TOTALS	686	71	21	778	2734	999	3733	707	43	8	758	998		
MAXWELL LOCK & DAM AUX 1	XXX													
UPBOUND STATISTICS	122	10	2	134	607	52	659	124	10	0	134	51		
DOWNBOUND STATISTICS	507	24	7	538	163	2689	2852	513	16	0	529	2622		
TOTALS	629	34	9	672	770	2741	3511	637	26	0	663	2674		
LOCK & DAM 7	XXX													
UPBOUND STATISTICS	525	9	25	559	2225	312	2537	976	10	8	994	341		
DOWNBOUND STATISTICS	517	11	29	557	226	2319	2545	988	16	7	1011	2186		
TOTALS	1042	20	54	1116	2451	2631	5082	1964	26	15	2005	2527		
LOCK & DAM 8	XXX													
UPBOUND STATISTICS	457	5	13	475	1923	308	2231	844	5	7	856	341		
DOWNBOUND STATISTICS	454	8	20	482	217	2035	2252	858	10	7	875	1929		
TOTALS	911	13	33	957	2140	2343	4483	1702	15	14	1731	2271		
MORGANTOWN LOCK & DAM	XXX													
UPBOUND STATISTICS	46	15	7	68	197	10	207	53	14	4	71	9		
DOWNBOUND STATISTICS	46	16	7	69	14	192	206	54	14	3	71	188		
TOTALS	92	31	14	137	211	202	413	107	28	7	142	197		
HILDEBRAND LOCK & DAM	XXX													
UPBOUND STATISTICS	23	13	9	45	53	10	63	31	13	3	47	9		
DOWNBOUND STATISTICS	23	16	8	47	12	51	63	32	15	2	49	54		
TOTALS	46	29	17	92	65	61	126	63	28	5	96	63		

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC ID	DISTRICT NAME	DIVISION NAME						MONTHS REPORTED						
		OHIO RIVER						10/83	11/83	12/83	TONNAGE (KTONS)			
RIVER/LOCK NAME		TONS	VESSEL RECRDN	VESSEL OTHER	VESSEL TOTAL	BARGES EMPTY	BARGES FULL	BARGES TOTAL	LOCKGS CONVER	LOCKGS RECRDN	LOCKGS OTHER	LOCKGS TOTAL	TONNAGE (KTONS)	
MONONGAHELA RIVER														
OPEKISKA LOCK & DAM		XXX												
UPBOUND STATISTICS		14	28	11	53	9	10	19	27	22	2	51	9	
DOWNBOUND STATISTICS		15	28	10	53	13	8	21	27	23	2	52	7	
TOTALS		29	56	21	106	22	18	40	54	45	4	103	16	
OHIO RIVER														
ENSWORTH LOCK & DAM		XXX												
UPBOUND STATISTICS		560	19	62	641	1320	1790	3110	651	7	2	660	2029	
DOWNBOUND STATISTICS		566	20	67	653	1248	1937	3185	652	12	4	668	2087	
TOTALS		1126	39	129	1294	2568	3727	6293	1303	19	6	1328	4116	
ENSWORTH LOCK & DAM AUX 1		XXX												
UPBOUND STATISTICS		66	5	32	103	66	52	118	108	5	7	120	50	
DOWNBOUND STATISTICS		47	11	48	106	50	43	93	105	7	6	118	46	
TOTALS		113	16	80	209	116	95	211	213	12	13	238	97	
DASHIELDS LOCK & DAM		XXX												
UPBOUND STATISTICS		492	0	19	511	1361	1840	3201	560	0	4	564	2087	
DOWNBOUND STATISTICS		500	0	20	520	1233	2071	3304	562	0	3	565	2244	
TOTALS		992	0	39	1031	2594	3911	6505	1122	0	7	1129	4331	
DASHIELDS LOCK & DAM AUX 1		XXX												
UPBOUND STATISTICS		105	22	77	204	73	98	161	185	16	6	207	92	
DOWNBOUND STATISTICS		94	35	88	217	101	27	128	187	24	7	218	88	
TOTALS		199	57	165	421	174	115	289	372	40	13	425	120	
MONTGOMERY LOCK & DAM		XXX												
UPBOUND STATISTICS		431	2	28	461	1033	1877	2910	545	0	4	549	2281	
DOWNBOUND STATISTICS		432	1	31	464	1316	1660	2976	536	1	2	539	1906	
TOTALS		863	3	59	925	2349	3537	5886	1081	1	6	1088	4187	

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

ERIC #	DISTRICT NAME PITTSBURGH	DIVISION NAME OHIO RIVER						MONTHS REPORTED					
		10/83			11/83			12/83					
RIVER/LOCK NAME	TONS	VESSEL RECRTN	VESSEL OTHER	VESSEL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS CONVER	LCKGES RECRTN	LCKGES OTHER	LCKGES TOTAL	TONNAGE (KTONS) (NAV, DPN, ETC)	
OHIO RIVER													
MONTGOMERY LOCK & DAM AUX 1	XXX												
UPBOUND STATISTICS	111	53	52	216	200	257	457	285	48	9	342	291	
DOWNBOUND STATISTICS	102	44	51	197	178	194	372	244	45	8	297	213	
TOTALS	213	97	103	413	378	451	829	529	93	17	639	505	
NEW CUMBERLAND LOCK & DAM	XXX												
UPBOUND STATISTICS	349	0	7	356	465	2757	3222	351	0	1	352	3905	
DOWNBOUND STATISTICS	315	2	4	321	1684	1238	2922	316	2	0	318	1503	
TOTALS	664	2	11	677	2149	3995	6144	667	2	1	670	5409	
NEW CUMBERLAND LK & DAM AUX 1	XXX												
UPBOUND STATISTICS	147	33	42	222	323	170	493	191	20	3	214	247	
DOWNBOUND STATISTICS	181	39	34	254	328	228	556	216	27	2	245	228	
TOTALS	328	72	76	476	651	398	1049	407	47	5	459	475	
PIKE ISLAND LOCK & DAM	XXX												
UPBOUND STATISTICS	379	1	5	385	334	3500	3834	380	0	0	380	5022	
DOWNBOUND STATISTICS	335	0	7	342	2096	1319	3415	336	0	0	336	1750	
TOTALS	714	1	12	727	2430	4819	7249	716	0	0	716	6773	
PIKE ISLAND LOCK & DAM AUX 1	XXX												
UPBOUND STATISTICS	94	38	39	171	151	107	258	136	29	3	168	145	
DOWNBOUND STATISTICS	150	26	20	196	252	207	459	174	20	2	196	201	
TOTALS	244	64	59	367	403	314	717	310	49	5	364	346	
HANNIBAL LOCKS & DAM	XXX												
UPBOUND STATISTICS	344	3	5	352	934	2968	3902	347	0	3	350	4172	
DOWNBOUND STATISTICS	323	0	2	325	1440	2247	3687	326	0	2	328	3056	
TOTALS	667	3	7	677	2374	5215	7589	673	0	5	678	7229	
HANNIBAL LOCKS & DAM AUX 1	XXX												
UPBOUND STATISTICS	68	7	9	84	196	220	416	91	7	21	119	321	
DOWNBOUND STATISTICS	94	17	12	123	176	320	496	121	15	26	162	358	
TOTALS	162	24	21	207	372	540	912	212	22	47	281	680	

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC #	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED											
			10/83			11/83			12/83					
ALL TIMES EXPRESSED IN MINUTES														
			APPROACH	LOCK PROCESSING TIME		CHAMBER	EXIT	:	DELAYED	DELAY	DELAY			
			MIN AVG MAX	MIN AVG MAX	MIN AVG MAX	MIN AVG MAX	MIN AVG MAX	:	TONS	TIME	Avg	Max		(ALL VSSLS)
ALLENTOWN RIVER														
LOCK & DAM 2			1 5 70	1 4 28	6 7 20	1 6 45	:	77	2779	36.1	255			
LOCK & DAM 3			1 7 71	1 4 40	5 7 18	1 6 30	:	82	3218	39.2	410			
LOCK & DAM 4			1 6 25	1 4 64	6 8 28	1 6 37	:	39	980	25.1	105			
LOCK & DAM 5			1 2 10	1 2 30	5 8 50	1 3 12	:	9	149	16.6	53			
LOCK & DAM 6			3 4 30	3 4 5	6 8 18	3 5 11	:	9	135	15.0	23			
LOCK & DAM 7			1 3 7	1 2 26	7 7 10	1 4 6	:	3	33	11.0	16			
LOCK & DAM 8			1 4 7	2 2 13	8 8 8	2 2 5	:	0	0	0.0	21			
LOCK & DAM 9			1 4 5	1 1 1	10 10 10	1 1 2	:	0	0	0.0	10			
MONONGAHELA RIVER														
LOCK & DAM 2			1 11 43	1 5 33	7 11 39	1 7 55	:	262	8835	33.7	255			
LOCK & DAM 2 AUX 1			1 8 29	1 2 13	5 6 15	1 2 15	:	18	256	14.2	60			
LOCK & DAM 3			1 10 57	1 5 23	6 10 32	3 6 39	:	818	29597	36.2	184			
LOCK & DAM 3 AUXILIARY 1			1 8 26	1 2 12	5 8 26	1 3 15	:	24	304	12.7	25			
LOCK & DAM 4			1 10 47	1 6 23	6 10 36	1 7 37	:	543	21041	38.7	294			
LOCK & DAM 4 AUXILIARY 1			1 9 39	1 2 16	5 9 23	1 4 24	:	6	69	11.5	33			
MAXWELL LOCK & DAM			1 9 36	1 6 30	7 11 35	2 8 29	:	71	1039	14.6	47			

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC H4	DISTRICT NAME PITTSBURGH	DIVISION NAME OHIO RIVER	MONTHS REPORTED														
			10/83				11/83				12/83						
ALL TIMES EXPRESSED IN MINUTES																	
			APPROACH	LOCK PROCESSING TIME				EXIT	: DELAYED TOWS TIME (TOWS)				DELAY AVG (TOWS)	DELAY MAX (ALL VSSLS)			
			MIN AVG MAX : MIN AVG MAX : MIN AVG MAX : MIN AVG MAX :	ENTRY	CHAMBER			MIN AVG MAX :	TOWS	TIME	(TOWS)						
NONONGAHELA RIVER																	
MAXWELL LOCK & DAM AUX 1	1	11	38	2	7	18	9	12	44	2	9	23	:	50	736	14.7	57
LOCK & DAM 7	1	6	53	1	4	29	5	6	27	1	9	62	:	478	23331	48.8	269
LOCK & DAM 8	1	5	42	1	4	21	5	6	32	2	9	44	:	320	12536	39.2	159
MORGANTOWN LOCK & DAM	2	5	10	2	4	10	5	11	30	2	5	10	:	0	0	0.0	11
HILDEBRAND LOCK & DAM	2	4	20	1	3	12	7	11	29	1	4	13	:	0	0	0.0	45
OPEKISKA LOCK & DAM	2	5	17	2	3	6	10	10	18	2	3	6	:	0	0	0.0	0
OHIO RIVER																	
EMSWORTH LOCK & DAM	1	12	58	2	7	66	6	15	46	2	8	70	:	576	41131	71.4	1169
EMSWORTH LOCK & DAM AUX 1	1	10	40	1	4	15	6	9	20	2	4	24	:	14	776	55.4	178
DASHIELDS LOCK & DAM	1	15	70	1	8	56	6	11	40	1	10	96	:	442	30802	69.7	533
DASHIELDS LOCK & DAM AUX 1	1	11	46	1	3	15	5	6	15	1	3	19	:	22	264	12.0	39
MONTGOMERY LOCK & DAM	1	10	75	1	9	51	7	14	58	1	13	82	:	479	46971	98.1	1210
MONTGOMERY LOCK & DAM AUX 1	1	6	58	1	5	53	6	9	28	1	5	25	:	118	127047	1076.7	2447
NEW CUMBERLAND LOCK & DAM	1	20	59	1	6	33	5	15	49	2	13	53	:	161	6096	37.9	175
NEW CUMBERLAND LK & DAM AUX	1	14	50	1	2	10	7	12	25	1	9	51	:	24	586	24.4	75
PIKE ISLAND LOCK & DAM	1	16	59	1	9	30	5	14	58	2	10	32	:	189	7386	39.1	151
PIKE ISLAND LOCK & DAM AUX 1	1	10	34	1	4	15	5	13	45	1	8	22	:	15	348	23.2	43

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

ERIC #	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED												
			10/83				11/83				12/83				
ALL TIMES EXPRESSED IN MINUTES															
			LOCK PROCESSING TIME								DELAYED	DELAY	DELAY		
			APPROACH	ENTRY	CHAMBER	EXIT	:	TONS	TIME	Avg	MAX				
			MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	(TONS)	(TONS)	(ALL VSSLS)	
OHIO RIVER															
HANNIBAL LOCKS & DAM			1	18	58	1	10	25	7	16	52	1	11	24	:
HANNIBAL LOCKS & DAM AUX 1			1	12	52	1	6	26	6	16	54	2	11	48	:
												216	11889	55.0	607
												50	14263	285.3	790

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC K3	DISTRICT NAME JACKSONVILLE	DIVISION NAME SOUTH ATLANTIC	MONTHS REPORTED 10/83	MONTHS REPORTED 11/83	MONTHS REPORTED 12/83
RIVER		LCODE-LOCK NAME		LEN/WID/DRAFT (FT/FT/FT)	
CROSS FLA BRG CNL		11-HENRY HOLLAND BUCKHAN LOCK	0600/0084/15.0		
		12-EUREKA LOCK	0600/0084/15.0		
		13-INGLIS LOCK	0600/0084/15.0		
CANAVERAL HARBOR		21-CANAVERAL LOCK	0600/0090/15.0		
OKEECHOBEE WATERWAY		01-ST LUCIE LOCK & DAM	0275/0050/14.0		
		02-MOORE HAVEN LOCK	0275/0050/11.0		
		03-ORTONA LOCK & DAM	0275/0050/12.0		
		04-N P FRANKLIN LCK & CTRL STRCT	0450/0056/14.0		
		05-PORT MAYACA LOCK	0450/0056/14.0		
OKLAHOMA RIVER		31-MOSS BLUFF LOCK & DAM	0156/0030/XXXX		

NO DATA RECORDED ON SUMMARY FILE FOR THIS PERIOD

NO DATA RECORDED ON LCKAGE FILE FOR THIS PERIOD

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC KS	DISTRICT NAME MOBILE	DIVISION NAME SOUTH ATLANTIC	MONTHS REPORTED		
			10/83	11/83	12/83
RIVER		LCODE-LOCK NAME		LEN/MID/DRAFT (FT/FT/FT)	
ALABAMA-COOSA RIVERS		11-CLAIBORNE LOCK & DAM		0600/0084/12.0	
		12-MILLERS FERRY LOCK & DAM		0600/0084/12.0	
		13-JONES BLUFF LOCK & DAM		0600/0084/12.0	
APLCH/CHTC/FLNT RI		21-JIM WOODRUFF LOCK & DAM		0450/0082/12.0	
		22-GEORGE W ANDREWS LOCK & DAM		0450/0082/12.0	
		23-WALTER F GEORGE LOCK & DAM		0450/0082/12.0	
BLKWAR/TOMBIGBEE RI		01-COFFEEVILLE LOCK		0600/0110/12.0	
		02-DEMOPOLIS LOCK & DAM		0600/0110/12.0	
		03-WARRIOR LOCK & DAM		0600/0110/12.0	
		04-WILLIAM BACON OLIVER LK & DM		0600/0095/12.0	
		05-WOLT LOCK & DAM		0600/0110/12.0	
		06-JOHN HOLLIS BANKHEAD LK & DM		0600/0110/12.0	
PEARL RIVER		31-LOCK 1		0310/0065/ 9.0	
		32-LOCK 2		0310/0065/ 9.0	
		33-LOCK 3		0310/0065/ 9.0	
TENN TOMBIGBEE WATERWAY		41-GAINESVILLE LOCK & DAM		0600/0110/12.0	
		42-ALICEVILLE LOCK & DAM		0600/0110/12.0	
		43-COLUMBUS LOCK & DAM		0600/0110/12.0	
		44-ABERDEEN LOCK & DAM		0600/0110/12.0	

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC KS	DISTRICT NAME MOBILE	DIVISION NAME SOUTH ATLANTIC						MONTHS REPORTED									
		TONS			VESSL			BARGS			BARGES			LCKGES			
		RECRN	OTHER	TOTAL	EMPTY	FULL	TOTAL	COMMER	LOCKGS	RECRN	OTHER	TOTAL	NAV.	DPN.	ETC	(KTONS)	
ALABAMA-COOSA RIVERS																	
CLAIBORNE LOCK & DAM		XXX															
UPBOUND STATISTICS		89	47	3	139	306	13	319	87	47	8	142			15		
DOWNBOUND STATISTICS		90	50	1	141	13	304	317	86	50	9	145			364		
TOTALS		179	97	4	280	319	317	636	173	97	17	287			379		
MILLERS FERRY LOCK & DAM		XXX															
UPBOUND STATISTICS		48	5	1	54	143	16	159	50	5	0	55			18		
DOWNBOUND STATISTICS		48	5	1	54	17	145	162	48	4	2	54			162		
TOTALS		96	10	2	108	160	161	321	98	9	2	109			180		
JONES BLUFF LOCK & DAM		XXX															
UPBOUND STATISTICS		8	23	0	31	5	11	16	10	9	2	21			14		
DOWNBOUND STATISTICS		7	23	1	31	9	4	13	9	8	6	23			4		
TOTALS		15	46	1	62	14	15	29	19	17	8	44			18		
APLCH/CHTC/FLNT RI																	
JIM WOODRUFF LOCK & DAM		XXX															
UPBOUND STATISTICS		85	20	8	113	169	52	221	99	12	9	120			108		
DOWNBOUND STATISTICS		85	20	10	115	55	168	223	103	16	12	131			97		
TOTALS		170	40	18	228	224	220	444	202	28	21	251			206		
GEORGE W ANDREWS LOCK & DAM		XXX															
UPBOUND STATISTICS		29	35	5	69	26	26	52	32	31	4	67			41		
DOWNBOUND STATISTICS		31	31	4	66	26	23	49	35	30	3	68			20		
TOTALS		60	66	9	135	52	49	101	67	61	7	135			62		
WALTER F GEORGE LOCK & DAM		XXX															
UPBOUND STATISTICS		13	20	1	34	16	11	27	15	16	6	37			19		
DOWNBOUND STATISTICS		13	17	4	34	13	13	26	17	15	6	38			8		
TOTALS		26	37	5	68	29	24	53	32	31	12	75			27		

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 10/83 THROUGH 12/83
INSTITUTE FOR WATER RESOURCES

EROC KS	DISTRICT NAME MOBILE	DIVISION NAME SOUTH ATLANTIC						MONTHS REPORTED					
		10/83			11/83			12/83					
RIVER/LOCK NAME	TONS	VESSEL RECRDN	VESSEL OTHER	VESSEL TOTAL	BARCS EMPTY	BARCS FULL	BARCES TOTAL	LOCKGS CMMR	LOCKGS RECRDN	LOCKGS OTHER	LOCKGS TOTAL	TONNAGE (KTONS)	
(NAV, DPN, ETC)													
BLKMAR/TOMBIGBEE RI													
COFFEEVILLE LOCK	XXX												
UPBOUND STATISTICS	446	12	11	469	1753	166	1919	448	1	18	467	277	
DOWNBOUND STATISTICS	432	11	16	459	96	1781	1877	436	6	24	466	2718	
TOTALS	878	23	27	928	1949	1947	3796	884	7	42	933	2995	
DENOPOLIS LOCK & DAM	XXX												
UPBOUND STATISTICS	430	5	12	447	1721	155	1876	432	3	11	446	254	
DOWNBOUND STATISTICS	424	7	11	442	98	1766	1864	430	2	10	442	2651	
TOTALS	854	12	23	889	1819	1921	3740	862	5	21	888	2906	
HARRIOR LOCK & DAM	XXX												
UPBOUND STATISTICS	428	6	8	442	1730	136	1866	436	1	5	442	246	
DOWNBOUND STATISTICS	427	4	5	436	85	1756	1841	429	2	3	434	2898	
TOTALS	855	10	13	878	1815	1892	3707	843	3	8	876	3144	
WILLIAM BACON OLIVER LK & DH	XXX												
UPBOUND STATISTICS	410	9	54	473	1705	101	1806	593	5	22	620	144	
DOWNBOUND STATISTICS	413	15	43	471	47	1732	1779	622	8	10	640	2646	
TOTALS	823	24	97	944	1752	1833	3585	1215	13	32	1260	2791	
HOLT LOCK & DAM	XXX												
UPBOUND STATISTICS	383	6	28	417	1675	100	1775	394	5	6	405	140	
DOWNBOUND STATISTICS	374	7	23	404	40	1706	1746	387	5	3	395	2584	
TOTALS	757	13	51	821	1715	1806	3521	781	10	9	800	2724	
JOHN HOLLIS BANKHEAD LK & DH	XXX												
UPBOUND STATISTICS	286	11	7	304	1169	96	1265	292	8	3	303	135	
DOWNBOUND STATISTICS	286	12	8	306	72	1193	1265	294	8	2	304	1830	
TOTALS	572	23	15	610	1241	1289	2530	586	16	5	607	1965	

PEARL RIVER

LOCK 1

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC KS	DISTRICT NAME MOBILE	DIVISION NAME SOUTH ATLANTIC						MONTHS REPORTED						
		10/83			11/83			12/83						
RIVER/LOCK NAME	TONS ONE	VESSL RECRTN	VESSL OTHER	VESSL TOTAL	BARCS EMPTY	BARCS FULL	BARCES TOTAL	LOCKGS CARRIER	LCKGES RECRTN	LCKGES OTHER	LCKGES TOTAL	TONNAGE (KTONS) (NAU, OPM, ETC)		

PEARL RIVER

LOCK 2 NO DATA RECORDED FOR THIS LOCK

LOCK 3 NO DATA RECORDED FOR THIS LOCK

TENN TOMBIGBEE WATERWAY

GAINESVILLE LOCK & DAM												
UPBOUND STATISTICS												
DOWNBOUND STATISTICS												
TOTALS												
	XXX											
ALICEVILLE LOCK & DAM												
UPBOUND STATISTICS												
DOWNBOUND STATISTICS												
TOTALS												
	XXX											
COLUMBUS LOCK & DAM												
UPBOUND STATISTICS												
DOWNBOUND STATISTICS												
TOTALS												
	XXX											
ABERDEEN LOCK & DAM												
NO DATA RECORDED FOR THIS LOCK												

NO DATA RECORDED FOR THIS LOCK

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 10/83 THROUGH 12/83
INSTITUTE FOR WATER RESOURCES

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 10/83 THROUGH 12/83
INSTITUTE FOR WATER RESOURCES

EROC KS	DISTRICT NAME MOBILE	DIVISION NAME SOUTH ATLANTIC	MONTHS REPORTED 10/83	MONTHS REPORTED 11/83	MONTHS REPORTED 12/83			
ALL TIMES EXPRESSED IN MINUTES								
	APPROACH	LOCK PROCESSING TIME	:	DELAYED	DELAY			
	ENTRY	CHAMBER	EXIT	TOWS	TIME			
	MIN : MIN	AVG : MIN	MAX : MIN	AVG : MIN	MAX : (TOWS)			
	MIN	AVG	MAX	MIN	Avg	Max	Delay	Delay
							(ALL VSSLS)	(TOWS)
TENN TOMBIGBEE WATERWAY								
GAINESVILLE LOCK & DAM	1 11 55	1 5 27	6 12 20	1 8 23	0	0	0.0	20
ALICEVILLE LOCK & DAM	1 4 45	1 2 19	5 12 24	1 3 17	0	0	0.0	17
COLUMBUS LOCK & DAM	1 3 30	1 1 12	5 13 42	1 1 15	4	37	9.3	20
ABERDEEN LOCK & DAM	NO DATA RECORDED FOR THIS LOCK							

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 10/83 THROUGH 12/83
INSTITUTE FOR WATER RESOURCES

EROC K6	DISTRICT NAME SAVANNAH	DIVISION NAME SOUTH ATLANTIC	MONTHS REPORTED	10/83	11/83	12/83
RIVER SAVANNAH RIVER	LCODE-LOCK NAME 01-NEW SAVANNAH BLUFF LOCK & DAM	LEN/WID/DRAFT (FT/FT/FT)		0360/0056/12.0		

NO DATA RECORDED ON SUMMARY FILE FOR THIS PERIOD

NO DATA RECORDED ON LCKAGE FILE FOR THIS PERIOD

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 10/83 THROUGH 12/83
INSTITUTE FOR WATER RESOURCES

EROC K7	DISTRICT NAME WILMINGTON	DIVISION NAME SOUTH ATLANTIC	MONTHS REPORTED		
			10/83	11/83	12/83
RIVER		LCODE-LOCK NAME	LEN/WID/DRAFT (FT/FT/FT)		
CAPE FEAR RIVER		01-LOCK & DAM 1	0200/0040/10.0		
		02-LOCK & DAM 2	0200/0040/10.0		
		03-WILLIAM O HUSKE LOCK & DAM	0300/0040/10.0		

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC K7	DISTRICT NAME WILMINGTON	DIVISION NAME SOUTH ATLANTIC	MONTHS REPORTED									
			10/83			11/83			12/83			
RIVER/LOCK NAME	TOWS	VESSL RECRTN	VESSL OTHER	VESSL TOTAL	BARGS	BARGS EMPTY	BARGES TOTAL	LOCKGS COMMER	LCKGES RECRTN	LCKGES OTHER	LCKGES TOTAL	TONNAGE (KTOMS) (NAV, OPM, ETC)
CAPE FEAR RIVER												
LOCK & DAM 1	XXX											
UPBOUND STATISTICS	16	4	0	20	0	16	16	29	1	7	37	
DOWNBOUND STATISTICS	16	4	0	20	16	0	16	29	1	7	37	
TOTALS	32	8	0	40	16	16	32	58	2	14	74	
LOCK & DAM 2	XXX											
UPBOUND STATISTICS	15	4	0	19	0	15	15	28	1	5	34	
DOWNBOUND STATISTICS	16	16	0	32	16	0	16	29	3	5	37	
TOTALS	31	20	0	51	16	15	31	57	4	10	71	
WILLIAM D HUSKE LOCK & DAM	XXX											
UPBOUND STATISTICS	16	0	0	16	0	16	16	17	0	0	17	
DOWNBOUND STATISTICS	16	14	0	30	16	0	16	17	0	1	18	
TOTALS	32	14	0	46	16	16	32	34	0	1	35	

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC K7	DISTRICT NAME WILMINGTTON	DIVISION NAME SOUTH ATLANTIC	MONTHS REPORTED											
			10/83			11/83			12/83					
ALL TIMES EXPRESSED IN MINUTES														
			LOCK	PROCESSING	TIME	ENTRY	CHAMBER	EXIT	DELAYED	DELAY	DELAY	TIME	Avg	Max
APPROACH			MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	(TOMS)	(TOMS)	(ALL VSSLS)
CAPE FEAR RIVER														
LOCK & DAM 1			5	5	5	5	5	5	5	14	15	5	5	15
LOCK & DAM 2			5	5	10	5	5	10	5	9	15	5	12	437
WILLIAM O HUSKE LOCK & DAM			4	4	5	5	5	5	30	30	30	5	5	5
												0	0	0.0

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 10/83 THROUGH 12/83
INSTITUTE FOR WATER RESOURCES

EROC L2	DISTRICT NAME SACRAMENTO	DIVISION NAME SOUTH PACIFIC	MONTHS REPORTED
			10/83 11/83 12/83
RIVER SCRANTON DWSNP CHNL	LCODE-LOCK NAME 01-BARGE CANAL LOCK		LEN/HID/DRAFT (FT/FT/FT) 0640/0086/23.0

NO DATA RECORDED ON SUMMARY FILE FOR THIS PERIOD

NO DATA RECORDED ON LOCKAGE FILE FOR THIS PERIOD

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 10/83 THROUGH 12/83
INSTITUTE FOR WATER RESOURCES

EROC	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED
M3	CALVESTON	SOUTHWESTERN	10/83 11/83 12/83
RIVER	LCODE-LOCK NAME	LEN/WID/DRAFT (FT/FT/FT)	
GULF INTRACOASTAL	11-COLORADO RIVER EAST LOCK	1200/0075/15.0	
	12-COLORADO RIVER WEST LOCK	1200/0075/15.0	
	13-BRAZOS EAST GATE	9999/0075/15.0	
	14-BRAZOS WEST GATE	9999/0075/15.0	

NO DATA RECORDED ON SUMMARY FILE FOR THIS PERIOD

NO DATA RECORDED ON LCKAGE FILE FOR THIS PERIOD

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC #4	DISTRICT NAME LITTLE ROCK	DIVISION NAME SOUTHWESTERN	MONTHS REPORTED		
			10/83	11/83	12/83
RIVER	LCODE-LOCK NAME		LEN/HID/DRAFT (FT/FT/FT)		
ARKANSAS RIVER	01-NORRELL LOCK & DAM		0600/0110/12.0		
	02-LOCK & DAM 2		0600/0110/12.0		
	03-LOCK & DAM 3		0600/0110/12.0		
	04-LOCK & DAM 4		0600/0110/12.0		
	05-LOCK & DAM 5		0600/0110/12.0		
	06-DAVID D TERRY LOCK & DAM		0600/0110/12.0		
	07-MURRAY LOCK & DAM		0600/0110/12.0		
	08-TOAD SUCK FERRY LOCK & DAM		0600/0110/12.0		
	09-LOCK & DAM 9		0600/0110/12.0		
	10-DARDANELLE LOCK & DAM		0600/0110/12.0		
	11-OZARK LOCK & DAM		0600/0110/12.0		
	13-LOCK & DAM 13		0600/0110/12.0		

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC M4	DISTRICT NAME LITTLE ROCK	DIVISION NAME SOUTHWESTERN						MONTHS REPORTED						
		10/83			11/83			12/83						
RIVER/LOCK NAME	TONS	VESSL RECRTN	VESSL OTHER	VESSL TOTAL	BARCS EMPTY	BARCS FULL	BARCS TOTAL	LOCKGS CARRIER	LCKGES RECRTN	LCKGES OTHER	LCKGES TOTAL	TONNAGE (KTONS)		
ARKANSAS RIVER														
NORRELL LOCK & DAM	XXX													
UPBOUND STATISTICS	162	14	60	236	397	371	768	181	11	45	237	491		
DOWNBOUND STATISTICS	171	10	55	236	130	660	790	172	8	44	224	843		
TOTALS	333	24	115	472	527	1031	1558	353	19	89	461	1335		
LOCK & DAM 2	XXX													
UPBOUND STATISTICS	161	14	45	220	402	371	773	200	12	13	225	495		
DOWNBOUND STATISTICS	167	13	38	218	119	659	778	198	11	10	219	830		
TOTALS	328	27	83	438	521	1030	1551	398	23	23	444	1325		
LOCK & DAM 3	XXX													
UPBOUND STATISTICS	135	26	8	169	406	394	800	155	22	11	188	558		
DOWNBOUND STATISTICS	132	27	9	168	109	660	769	149	21	12	182	800		
TOTALS	267	53	17	337	515	1054	1569	304	43	23	370	1358		
LOCK & DAM 4	XXX													
UPBOUND STATISTICS	130	10	13	153	399	379	778	152	10	16	178	488		
DOWNBOUND STATISTICS	132	10	10	152	117	659	776	147	9	16	172	815		
TOTALS	262	20	23	305	516	1038	1554	299	19	32	350	1304		
LOCK & DAM 5	XXX													
UPBOUND STATISTICS	120	85	11	216	324	331	655	137	77	13	227	416		
DOWNBOUND STATISTICS	119	86	7	212	98	552	650	129	71	11	211	756		
TOTALS	239	171	18	428	422	883	1305	266	148	24	438	1172		
DAVID D TERRY LOCK & DAM	XXX													
UPBOUND STATISTICS	121	169	18	308	329	318	647	136	150	9	295	411		
DOWNBOUND STATISTICS	124	172	8	304	105	554	659	133	146	8	287	744		
TOTALS	245	341	26	612	434	872	1306	269	296	17	582	1156		
MURRAY LOCK & DAM	XXX													
UPBOUND STATISTICS	92	112	43	247	279	271	550	139	91	13	243	348		
DOWNBOUND STATISTICS	91	113	39	243	72	483	555	134	88	15	237	656		
TOTALS	183	225	82	490	351	754	1105	273	179	28	480	1004		

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC #	DISTRICT NAME LITTLE ROCK	DIVISION NAME SOUTHWESTERN						MONTHS REPORTED						
		10/83			11/83			12/83						
RIVER/LOCK NAME	TONS	VESSEL RECRTN	VESSEL OTHER	VESSEL TOTAL	BARGES EMPTY	BARGES FULL	BARGES TOTAL	LOCKGS CARRIER	LCKGES RECRTN	LCKGES OTHER	LCKGES TOTAL	TONNAGE (KTONS)		
ARKANSAS RIVER														
TOAD SUCK FERRY LOCK & DAM	XXX													
UPBOUND STATISTICS	95	30	4	129	281	277	558	106	27	14	147	355		
DOWNBOUND STATISTICS	89	29	2	120	73	469	542	94	21	11	126	640		
TOTALS	184	59	6	249	354	746	1100	200	48	25	273	995		
LOCK & DAM 9	XXX													
UPBOUND STATISTICS	89	37	6	132	274	269	543	98	30	10	138	349		
DOWNBOUND STATISTICS	98	38	2	128	72	466	538	93	29	9	131	639		
TOTALS	177	75	8	260	346	735	1081	191	59	19	269	988		
DARDANELLE LOCK & DAM	XXX													
UPBOUND STATISTICS	95	36	5	136	279	261	540	106	29	17	152	349		
DOWNBOUND STATISTICS	93	35	5	133	68	461	529	101	26	14	141	634		
TOTALS	188	71	10	269	347	722	1069	207	55	31	293	984		
OZARK LOCK & DAM	XXX													
UPBOUND STATISTICS	89	28	5	122	281	251	532	99	26	7	132	339		
DOWNBOUND STATISTICS	87	33	1	121	64	456	520	91	29	6	126	649		
TOTALS	176	61	6	243	345	707	1052	190	55	13	258	988		
LOCK & DAM 13	XXX													
UPBOUND STATISTICS	90	38	4	132	279	249	528	99	33	6	138	321		
DOWNBOUND STATISTICS	87	43	2	132	67	447	514	91	34	6	131	610		
TOTALS	177	81	6	264	346	696	1042	190	67	12	269	931		

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC M4	DISTRICT NAME LITTLE ROCK	DIVISION NAME SOUTHWESTERN	MONTHS REPORTED														
			10/83			11/83			12/83								
APPROACH	LOCK PROCESSING TIME			: DELAYED DELAY			DELAY			DELAY							
	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	(TONS)	(TONS)	(ALL VSSLS)		
ARKANSAS RIVER																	
NORRELL LOCK & DAM	1	8	40	1	7	70	1	11	35	1	7	65	:	46	1281	27.6	102
LOCK & DAM 2	1	10	40	1	9	45	5	13	50	1	9	95	:	60	89725	1495.4	87840
LOCK & DAM 3	1	11	110	1	9	42	6	13	31	1	10	50	:	33	1327	40.2	140
LOCK & DAM 4	1	12	55	1	9	55	5	11	48	2	11	82	:	23	684	29.7	75
LOCK & DAM 5	1	10	32	1	8	49	4	11	32	1	11	45	:	52	1013	19.5	160
DAVID D TERRY LOCK & DAM	1	9	65	1	7	125	6	10	25	1	8	62	:	24	950	39.6	142
MURRAY LOCK & DAM	1	5	30	1	6	41	8	10	23	1	7	51	:	24	766	31.9	145
TOAD SUCK FERRY LOCK & DAM	1	8	38	1	9	35	5	10	35	1	10	70	:	77	1014	13.2	120
LOCK & DAM 9	1	11	50	1	9	38	8	13	44	1	10	55	:	66	649	9.8	97
DARDANELLE LOCK & DAM	1	15	109	1	8	37	5	13	40	1	9	45	:	159	986	6.2	70
OZARK LOCK & DAM	1	11	40	2	11	55	10	12	25	2	12	40	:	136	1390	10.2	80
LOCK & DAM 13	1	8	43	1	10	44	10	13	53	1	12	44	:	22	490	22.3	46

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC HS	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED		
			10/83	11/83	12/83
RIVER		LCODE-LOCK NAME	LEN/WID/DRAFT (FT/FT/FT)		
ARKANSAS RIVER		21-W D MAYO LOCK & DAM	0600/0110/14.0		
		22-ROBERT S KERR LOCK & DAM &RES	0600/0110/14.0		
		23-HEBBERS FALLS LOCK & DAM	0600/0110/14.0		
		24-CHOUTEAU LOCK & DAM	0670/0110/14.0		
		25-NEWT GRAHAM LOCK & DAM	0670/0110/14.0		

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC MS	DISTRICT NAME TULSA	DIVISION NAME SOUTHWESTERN						MONTHS REPORTED									
		TONS			VESSL RECRN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS COMMER	LCKGES RECRN	LCKGES OTHER	LCKGES TOTAL	TONNAGE (KTONS)		
ARKANSAS RIVER																	
W D MAYO LOCK & DAM																	
UPBOUND STATISTICS		90	69	5	164	263	226	489	97	29	6	132	286				
DOWNBOUND STATISTICS		85	74	3	162	62	393	455	91	28	6	125	550				
TOTALS		175	143	8	326	325	619	944	188	57	12	257	836				
ROBERT S KERR LOCK & DAM & RES																	
UPBOUND STATISTICS		87	49	6	142	260	220	480	95	35	3	133	280				
DOWNBOUND STATISTICS		85	60	3	148	61	394	455	90	43	3	136	551				
TOTALS		172	109	9	290	321	614	935	185	78	6	269	832				
WEBBERS FALLS LOCK & DAM																	
UPBOUND STATISTICS		86	21	4	111	226	216	442	91	14	23	128	282				
DOWNBOUND STATISTICS		83	28	5	116	69	348	417	89	17	20	126	493				
TOTALS		169	49	9	227	295	564	859	180	31	43	254	775				
CHOUTEAU LOCK & DAM																	
UPBOUND STATISTICS		88	7	6	101	208	175	383	95	7	5	107	227				
DOWNBOUND STATISTICS		85	9	3	97	58	297	355	90	8	3	101	394				
TOTALS		173	16	9	198	266	472	738	185	15	8	208	623				
NEWT GRAHAM LOCK & DAM																	
UPBOUND STATISTICS		87	8	4	99	198	172	370	92	7	4	103	215				
DOWNBOUND STATISTICS		88	10	1	99	65	289	354	89	9	2	100	389				
TOTALS		175	18	5	198	263	461	724	181	16	6	203	604				

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 10/83 THROUGH 12/83
 INSTITUTE FOR WATER RESOURCES

EROC NS	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED											
			10/83			11/83			12/83					
ALL TIMES EXPRESSED IN MINUTES														
	APPROACH	LOCK	PROCESSING TIME	ENTRY	CHAMBER	EXIT	:	DELAYED	DELAY	DELAY	DELAY			
				MIN	Avg	MAX	:	TONS	TIME	Avg	Max	(TONS)	(TONS)	(ALL VSSLS)
							:							
ARKANSAS RIVER														
W D MAYO LOCK & DAM		1	10	43	1	9	39	5	11	50	1	10	70	:
ROBERT S KERR LOCK & DAM & RE	2	8	36	1	10	37	10	15	27	1	11	47	:	6
WEBBERS FALLS LOCK & DAM	1	14	70	2	8	45	10	19	50	3	10	104	:	52
CHOUTEAU LOCK & DAM	1	10	28	1	8	35	5	15	36	1	9	44	:	108
MENT GRAHAM LOCK & DAM	1	11	35	1	9	43	6	14	38	1	13	52	:	29

END